TELEPHONE PRICING POLICIES:
An Examination of the Value of Service Concept in light of the Current Debate About Pricing Philosophies

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Executive Summary

Telephone and telecommunication policies are in transition in Canada, and throughout the world. In a small but important circle, a debate rages about the extent to which traditional approaches to providing and pricing such services will prevail in the "new competitive environment". This debate is reflected more widely in the public response to such proposals as rate rebalancing or LMS. These are genuinely controversial matters in Canada and elsewhere.

The purpose of this report is to uncover the issues in the debate. It examines sources of controversy, and of the concern about the various initiatives now being proposed by industry and examined by regulators in Canada and governments everywhere.

There are many ways of uncovering the issues in the debate. This examination is cast as an evaluation of the implications of moving from a "value of service" to a "cost based" approach to telephone pricing, a transition that is said to be underway at this time. As the study shows, these terms, like all of the terminology in the debate, are themselves controversial. Indeed, one might describe the debate most accurately as one concerning how such terms as "basic service", "cost based pricing" and "universality" should be defined, for from each possible definition, different policies follow.

The report is based on interviews with the participants in the telephone pricing debate. Interviews were conducted with federal officials in various departments and agencies, provincial officials from three provinces, members of the telephone industry, representatives of business groups, consumer representatives and members of public interest groups such as old age pensioners. Several workshops were also conducted with community group leaders and social agency personnel. In total, more than fifty interviews and workshops were held.

The study demonstrates that there are two levels to the debate about telephone pricing policies:

(a) an immediate and practical assessment of the various options for policy that are being considered by government or by a regulatory agency responding to an application by industry

(b) a different debate that is focussed on broad questions of public policy.

It was found that the second level, the debate about broad social issues, had the potential to generate the most extensive public controvery. Indeed, it was these broader issues, and not the specific proposals, that were the cause of public reaction to "cost based" pricing, rate rebalancing, LMS etc.

The debate about broad social issues included the following:

(a). a debate about the extent to which telephone pricing policy is or should be *redistributive* in orientation.

(b). a debate about whether deregulatory and pro-competitive (not necessarily the same) policies should be pursued *actively*.

(c). a debate about the the degree to which telephone service is an *entitlement* or a right that should be provided without reference to the criteria of need and ability-to-pay

(d). a debate about which services should be *included* in this "right" or in the definition of universal service.

The study found that the terms "value of service" and "cost based" pricing were often used in a generic and non-technical sense. Thus the technical literature about "cost based pricing" was often "beside the point", for what is understood by "value of service" and "cost based" pricing in the public debate does not correspond to the definitions offered in that literature.

The study found that there were two distinct perspectives on the issue of universality:

> 1. a *technical* assessment of universality defined in terms of how many communities have telephone service, how many subscribers would disconnect if rates were restructured or raised, the price to be considered affordable, and the level of service to be provided on a universal basis.
>
> 2. a *social* view of universality, which links the provision of telephone service with the provision of essential social services. *In this definition of universality, services are regarded as entitlements, to be provided without reference to criteria of need or ability-to-pay.*

The second notion of universality was most widely accepted. For this reason, rate restructuring that includes budget or "lifeline" services for those otherwise deprived of local telephone service (because of its potentially increased cost) was unacceptable to many people. Any alternative to the current pricing policies that is based on need or ability to pay -- in other words, that is seen to be a form of welfare payment -- would be unacceptable to these people.

The study found that two issues were involved in the definition of basic service.

> (a) the question of how the various services -- basic and other -- will be priced. Those who argue for the limited concept of basic service envision the provision of basic services on a universal and flat rate basis, and the provision of "enhanced capacities" on a user pay basis. Those who argue for the more inclusive definition of basic service seek to incorporate the new services within the same pricing philosophies that now govern local telephone service.

that now govern local telephone service.

(b) the question of how the costs for technological enhancement should be allocated -- through the local network to local subscribers including residents, or distributed to the actual users of these enhanced, data-based services, primarily larger business enterprises using long distance primarily.

Many of the people interviewed thought that basic service should include access to the new telecommunications facilities in the same manner as tocal telephone services are now provided. To do otherwise was to create two classes of people in society, the information rich and the information poor.

That said, consumer groups in particular were concerned that the cost of upgrading the system for the new telepcommunication services should be borne by the major users, which are not residential subscribers. Rate rebalancing was viewed with suspicion because it seemed to place the burden on creating upgraded facilities upon the local systems, and more particularly upon residential subscribers.

The study found little support for pro-competition policies. At the same time, telephone and telecommunication services were linked closely with economic development, employment opportunities and with the pursuit of the national interest. Moreover, it was suggested by many groups that the social contribution of telephone services was often overlooked, particularly with respect to the delivery of social and community services.

The most serious consequences of any changing philosophy in telephone pricing were related to the delivery of services, the changing employment picture, the changing relationships between the federal and provincial governments and the potential reduction in support for old age pensioners and welfare recipients.

The study found that many disputed the perception that the impetus for change came simply from "the new competitive environment". New technologies that reduced the cost of long distance, the desire to emulate American policies, and the free trade agreement all were seen to be forcing a change in telephone pricing policies.

The research also involved a review of the academic literature from the United States and Canada to determine to what extent the issues raised in the interviews were discussed in the literature.

The study found several serious discrepancies between the public debate and the academic literature. One was the emphasis given in the literature, but not in the public debate, to issues related to competition. Another was the association in some academic literature between pro-competitive policies and social welfare, an association that did not appear in the interviews. Questions about employment, about "entitlements" and universality, about the provision of social services and about national economic policies -- such as free trade -- were not addressed in the literature, but were central to the public debate.

The study found that the description of the current situation as a transition between "value of service pricing" and "cost based pricing" was useful because it drew attention to the range of possible objectives for telephone pricing policy. These objectives should be spelled out for public debate, before specific proposals are advanced. If they are not, then reaction to specific proposals is likely to be negative.

The study also found that the description of the current change in terms of "value of service" and "cost based" pricing alternatives could be highly problematic if the terms were taken to have specific and rigorous definitions, for many different definitions prevailed. It was seriously in error if one specific approach to "cost based" pricing -- an approach made pro-competitive objectives paramount for public policy -- was adopted, since there are many ways to conduct "cost based pricing" and agencies such as the CRTC usually take a very pragmatic approach -- as they should.

Finally, the study concluded that it was a specific approach to "cost based" pricing -- one giving priority to procompetitive objectives -- that is feared when change is contemplated, for many interviewees believed that such "cost based" pricing would lead inevitably to LMS and to the dismantling of universal service. No one disputed the need for change, for adapting to the new environment. Describing this change as "cost based pricing", however, raised the spectre of policies that undermine the values now reflected in telephone pricing policies and the concept of universality.

Telephone Pricing Policies

A Report for the Department of Communications

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Chapter One: Introduction

In the fall of 1986, a study was undertaken for the Department of Communications. The purpose of this study was to evaluate the "value of service" concept in the pricing of telephone services.

The traditional approaches to regulating telephone and telecommunication services are being examined by the CRTC, the Department of Communications and in a number of other contexts. The "value of service" concept has traditionally been used as an approach to pricing telephone services in Canada. The alternative to a "value of service" approach is said to be "cost based" pricing. This study examines the implications of altering the traditional approach to regulation, particularly in terms of the goals of telephone pricing policies. In doing so, it provides an assessment of the "value of service" concept in such policies.

This study follows a number of other assessments of the regulation of telephone and telecommunication services, for the sector is in flux and a number of questions are being raised within the industry and by the regulator, the CRTC. One such study is particularly important, the Federal Provincial Examination of Telecommunications Pricing and the Universal Availability of Affordable Telephone Service (herein called the Mongeau report) which was released in October 1986.

The Mongeau report took as its purpose "the collection and review of the information and the provision of objective analysis relating to existing pricing arrangements and possible alternatives" and saw the Mongeau committee's role to be "an analytical and advisory one". It sought to provide governments with "a common base of information upon which to discuss and determine policies concerning telecommunications pricing and the universal availability of affordable telephone service".[1]

This report serves another, complementary purpose. It is designed to illuminate the more subjective side of telephone pricing policies, and to focus particularly on the changing philosophies of pricing. It also explores the definitions used in telephone and telecommunications policy debates. These definitions are themselves contentious, particularly in the international arena in such organizations as OECD amd the ITU. The report examines the different definitions related to telephone pricing used in the Canadian debate. As such, its purpose it is illuminate the points of contention and controversy in Canada, and , in this manner, also to lend support to the resolution of the international debate.

This report is based on a large consultative study with the various groups engaged in the telephone pricing debate. It focusses on their views about the various approaches to pricing and their objectives in both specific and general terms. It seeks to identify the social and economic implications of any change in the approach to the regulation of telephone pricing.

These consultations also identify the value debate that is occurring inside and outside the regulatory arena. The term "value debate" refers to the objectives that people or groups seek to realize through telephone pricing policies, and what they consider to be the best means of achieving these objectives. It includes the priority attached to the various objectives, and an analysis of the debate in order to identify confusions in terminology that confound any resolution of the issues.

The consultations add a new dimension to more conventional economic research on regulatory and telephone pricing policies and to the Mongeau report, by canvassing the clients of those policies as a source of information about them and by incorporating an assessment of the value debate in the evaluation of the social and economic implications of telephone pricing policies.

In addition to these consultations, a review of the historical literature on "value of service" pricing was conducted, and the current literature was examined in some detail. Here again, the goal was a limited one, and again one that was complementary to the task undertaken by the Mongeau report. Having identified the perceptions and concerns of the clients of current telephone pricing policies, it was necessary to see whether they were reflected in the academic, and primarily economic, literature. To the extent that these perceptions were evident, it was important to identify how the issues raised in the consultations had been discussed in the conventional literature on telephone pricing policies.

In summary, the research carried out for this report was designed to identify the implications of current technological, economic and institutional pressures that are likely to alter local telephone rates and challenge the appropriateness of the flat rate and, sometimes also, the "value of service" approach to structuring local telephone tariffs. Government, industry, public, academic and historical perceptions of these pressures are influencing judgements about the issues at stake, the available public policy options and the best means of exercising those options. These perceptions are important, as they influence the development and the effectiveness of public policy.

The Mongeau report focusses on universal availability of affordable telephone service, a topic of great importance to the public and policy makers alike. This report takes a different point of entry into the telephone pricing debate. It begins with the current debate about telephone pricing. This can be described as a debate about the basic approach to telephone pricing to be taken in Canada and by governments around the world. The debate is evident in the controversy surrounding proposals for rate rebalancing in Canada. It can also be described in terms of a shift from "value of service" pricing to ""cost based" pricing". This report focusses primarily on the implications of the changing philosophies of regulation for regulators, governments and their client publics. As such, this report does not provide an assessment of the specific options for public policy. It is designed to illustrate the factors that will be brought to the assessment by the client groups of those policies, and to identify the points of controversy in telephone pricing policies.

Methodology:

The study was conducted in two parts.

First: The primary focus of the study was a series of consultations conducted through interviews and workshops in Ottawa, Toronto, Regina, Vancouver and Victoria. The approach taken was as follows:

> Through transcripts and by personal contact, the client and participant groups in the telelphone pricing debate were identified. These included telephone and telecommunication providers and carriers, governments and their agencies, unions, various user groups including business and social service agencies, and finally groups representing the public.
>
> Decisions were made about how to select from this group for the purposes of interviewing, since it was not feasible to sample or to interview all of the groups. Three provinces were selected, and a number of national and provincial organizations were chosen. An attempt was made to find the widest possible range of groups within each province and nationally, and at the same time, to interview roughly comparable groups in each jurisdiction.
>
> Interviews were arranged and carried out, in person or through workshops. More than fifty interviews and workshops were conducted. The interviews and workshops were taped and transcribed.
>
> The groups interviewed do not constitute a sample in any statistical sense. Nor does this report constitute a study of public opinion, except as public opinion is reflected by government officials, industry representatives and by public interest groups. Indeed, one of the strengths of this study is that it is not a poll. In this study, a question raised by a single group is as important

> as one raised by many different groups. The emphasis was on identifying the nature of the concerns, rather than on the degree of unanimity about them. The groups spoke for themselves and their immediate constituencies only.
>
> The interviews were conducted on a not-for-attribution basis. The promise of anonymity provided the opportunity to "get behind" the official positions of each of the groups, to identify why certain views were held. It enabled a full and frank discussion of the consequences of following different approaches in telephone pricing. Interview excerpts are identified by their sector of origination only. The differences of views within a sector is as interesting as the views from a sector taken as a whole.

Second : As the Mongeau report notes, there is now an extensive literature on telephone pricing. Much of this literature is concerned with the assessment of specific costing methodologies, and is, as a consequence, not particularly relevant in its technical detail for this study. Nonetheless, even in the more technically-oriented material, and indeed in the analytical work of the Mongeau report, there are assumptions about the values and objectives to be pursued in telephone pricing policies and about the social and economic implications that should command attention. It was not possible to survey all of this literature, but the bibliography provided with this report indicates the range of material that was reviewed. The bibliography includes material of historical as well as current interest.

The report is not intended to be a literature review, even of the material that was surveyed. Selected material is used as illustrations of specific debates in the literature. Thus, the methodology for the second segment of the study was as follows:

> A review of the current literature was undertaken. A bibliography is attached.
>
> The purpose of this review was a limited one, to identify the manner in which the concerns raised in the consultations had been dealt with in the literature. The focus of the literature review was on telelphone pricing philosophies, and thus on questions pertaining to the desirability and the social and economic implications of a transition from "value of service" to "cost based" pricing.

The report is organized in two parts, following the conduct of the research. Part one is based on the consultations, and conclusions that can be drawn from them. It is divided into four sections: the definitions, objectives, consequences and forces for change of the various telephone pricing policies. Part two deals with the debate as it is represented in the historical and current literature, including the documents from several regulatory proceedings.

Conducting the research and preparing this report has been a more difficult task than was anticipated. On one hand, the issues in the debate seem very clear, almost too simple to bear repeating here. There is now a considerable literature on telephone pricing, and it would be difficult to add anything genuinely new to the debate. On the other hand, the research uncovered considerable uncertainties with respect to these same issues, and many ambiguities in the descriptions of the issues. What seemed very clear at the onset was considerably less clear on closer examination.

In an interim report from this research study to the Department of Communications, the conclusions to this research study were phrased as a series of questions. In the writing of the final report, these questions remain, although this report is not written in the same style. The experience of conducting the research leads its author to one primary conclusion: there are considerably more areas of confusion, disagreement and lack of information than is first apparent in a survey of the telephone pricing debate. The fact that all participants seem to understand the issues and know their own and others' views very well disguises another reality, that the questions and objectives of each of the participants have not yet been properly identified. If this report contributes to clarifying what is at issue for the participants, it will have advanced the debate considerably.

Finally, it is important to deal with the question of the perspective from which the research was conducted. The definition of the problem to be studied was taken from the Department of Communications, and it proved appropriate for the task. There are other ways that the same topic could have been approached, of course. It is intended that the various positions in the debate be represented fairly, as their authors would represent them. This was accomplished in the consultative section of the report by the use of extensive excerpts from the tape transcripts.

In the literature review, the problem of dealing with perspective was more difficult, particularly since only a limited portion of the literature is dealt with in this report. It was decided to use the consultative material as the basis for "questioning" the literature. In other words, the pre-occupations of those interviewed are reflected in the selection of material from the literature.

The author would like to acknowledge the significant contributions made by Peter Anderson, Research Associate, and Regina Costa, Research Assistant, in conducting the research. Peter Anderson carried out interviews in Ottawa, Toronto and British Columbia, and several of the workshops. Regina Costa wrote several background papers on telephone pricing issues, including one on the historical approaches to telephone pricing, and conducted many interviews. In addition, the assistance of Marion Mitchell and Len Eichel in analysing interview material was much appreciated, as is the continuing contributions of Ron Trepanier, Research Assistant. Reponsibility for this report and for any errors or omissions rests entirely with its author.

No study can be completely without bias. The author is on record with a number of arguments about regulation, and in the text of the report, these arguments are identified specifically so that the reader is not taken unaware. The purpose of this report is not to take a position in the debate about telephone pricing policies, however. It is to identify the positions as they exist, so that more informed participation is possible. Thus, no specific recommendations for public policy are made in this report other than those associated with the level of information in the debate and the possibility of informed participation in it.

That said, a number of comments were made about problems with participation in the decision making process. The regulatory process is seen by some to present formidable obstacles to participation. This is not so much the fault of procedures, as the result of the complexity of the issues, the density of the language and the lack of opportunity to discuss the general policy questions attached to specific proposals for telephone pricing.

These comments set the agenda for this report, for it is intended not only to clarify the debate, but to render it intelligible to those who are not "insiders", experts, lawyers or economists. For the people who raised concerns about participation, the decisions to be made are not technical ones, nor are they simply concerned with pricing methodologies. Rightly or wrongly, they believe that a change in telephone pricing policy has implications beyond that of increasing the cost of local calling. The so-called bias of this report is that its author shares this view.

Footnotes:

1. Jean Pierre Mongeau, *Federal-Provincial Examination of Telecommunications Pricing and the Universal Availability of Affordable Telephone Service*, (Ottawa: Minister of Supply and Services Canada, 1986), p. 2.

Part One: The Consultative Study

Chapter Two: A Question of Definitions

Overview:

The exploration of the definitions used in the telephone pricing debate is a useful entry point into consultations with a number of the clients of telephone pricing policies. The problems in definition -- the many different definitions of basic terminology -- were anything but semantic. The use of terms, such as "value of service" and "cost based" pricing, "universal" and "basic service", provide a window into the debates that spark controversy about governmental and regulatory policies.

The telephone pricing debates have two levels, (a) an immediate and practical assessment of the various options for policy that are being considered by government or by a regulatory agency responding to an application by industry, and (b) a substratum, a different debate that is focussed on broad questions of public policy.

Four elements of the second level of debate can be identified. They are as follows:

1. a debate about the extent to which telephone pricing policy is or should be redistributive in orientation.

2. a debate about whether deregulatory and pro-competitive (not necessarily the same) policies should be pursued actively.

3. a debate about the extent to which the local telephone system is or should be considered to be universal, the degree to which telephone service is an entitlement or a right that should be provided without reference to the criteria of need and ability-to-pay.

4. a debate about which services should be included in this "right" or in the definition of universal service.

These debates are not, and cannot easily be addressed in the assessment of specific options for public policy, for they concern questions about how such policy is formulated and about national priorities. Nonetheless, the definitional study suggests that these more general questions are "on the table" when specific options are being evaluated, even if their presence is not acknowledged or recognized.

Much of the public controversy stems from the second, more general level of debate that is occurring alongside the consideration of specific proposals. Indeed, the controversy over LMS, and the lukewarm reception for the idea of Lifeline service can both best be understood in these terms.

The terms "value of service" and "cost based" pricing are often used in a generic and non-technical sense. Thus the technical literature and more analytical assessments of various options are often "beside the point", for what is understood by "value of service" and "cost based" pricing in the public debate does not correspond to the definitions offered in that literature.

The generic use of the terms "value of service" and "cost based" pricing should not be considered to be a distortion of the debate, however much analytical clarity is sought. It was suggested to us, and we see some evidence to support the point, that the terms in the public debate have their origins in the submissions made to governments and to regulatory agencies by telephone companies, usually in the context of specific applications. The use of these terms in the submissions of the telephone companies is also a generic one, a means of describing, in the best light possible, *their* desired objectives.

The terms "value of service" and ""cost based" pricing" have made their way into the public discourse about telephone pricing policies and, to a lesser degree, into the regulatory assessments of specific options. These terms appear to be more technically grounded than they are, less a product of specific telephone company submissions to the regulators and more consistent with the technical literature than is actually the case.

In the case of ""value of service" pricing", the industry-generated nature of the discourse is particularly obvious, for as the next section will indicate, there is relatively little discussion of "value of service" pricing in the technical or analytical literature.

With respect to "cost based" pricing, the discrepancy between the technical or analytical literature and the public discourse is greater, and of more significance. This is true because the technical or analytic literature is so seemingly precise in its formulations, and because those generating the technical literature are often also proposing different models for arriving at public policy decisions. What these authors mean by "cost based" pricing is not always the same thing as is meant by the use of the term in the public telephone pricing debate.

The similarity between the technical and the public debate lies in the fact that both are prescriptive. Both are written to convince policy makers about the desirability of particular policies. Since both are focussed on reform, the tenor of the technical -- or academic -- and the public is often similar, and this similarity in style suggests a similarity in content that is, in fact, absent.

There are two distinct perspectives on the issue of universality. They are as follows:

> 1. a *technical* assessment of universality defined in terms of how many communities have telephone service, how many subscribers would disconnect if rates were restructured or raised, the price to be considered affordable, and the level of service to be provided on a universal basis.
>
> 2. a more widely encompassing *social* view of universality, which in spite of the obvious differences, links the provision of telephone service with the provision of essential social services. *In this definition of*

> *universality, services are regarded as entitlements, to be provided without reference to criteria of need or ability-to-pay.* The central question in this view of universality is *how* should service be provided.

Taking the Mongeau report as typical of the current policy perspective of the regulators and governments, it is clear that the *technical* definition of universal service is widely used. Thus, for example, the Mongeau report speaks extensively about the penetration levels of telephone services, and the potential number of disconnections were the regulatory approach to be changed.

While it is altogether understandable that those who set policies would focus on the implementation of those policies, and thus on technical definitions of universality, at the same time the Mongeau report does not really address the public controversies that arise concerning telephone pricing policies.

The reaction to LMS and Lifeline service illustrates the difference between the approach taken in the Mongeau report and that underlying the public debate, for at least LMS -- as every regulator and telephone company knows -- has generated a backlash far out of proportion to the limited proposals that are now being -- or might be -- considered.

There are two quite distinct views on what constitutes basic service. The first is often labelled "plain ordinary telephone service" and it now includes the access to the network but not the standard black rotary dial phone. The second incorporates the new technological facilities that are part of the "information age".

Two issues are involved in the definition of basic service. They are as follows:

> 1. the question of how the various services -- basic and other -- will be priced. Those who argue for the limited concept of basic service envision the provision of basic services on a universal and flat rate basis, and the provision of "enhanced capacities" on a user pay basis. Those who argue for the more inclusive definition of basic service seek to incorporate the new services within the same pricing philosophies

> to incorporate the new services within the same pricing philosophies that now govern local telephone service.
>
> 2. the question of how the costs for technological enhancement should be allocated -- through the local network to local subscribers including residents, or distributed to the actual users of these enhanced, data-based services, primarily larger business enterprises using long distance primarily.

While the distinction in the two perspectives on universal service can be described, albeit only in the most general terms, as a choice between "value of service" and "cost based" pricing approaches, the distinction between these two views of basic service cannot.

It has been suggested earlier that the terms "value of service" and "cost based" pricing incorporate the debate about the restructuring of telephone rates between local and long distance. This is true because the terms "value of service" and "cost based" pricing are used in the public debate primarily only in a generic sense, and only as points of contrast between the conventional modes of pricing and proposed alternatives to them.

In contrast, with respect to issues concerning cost allocations -- which are central to the debate about restructuring -- neither "value of service" nor "cost based" pricing is a sufficient term to describe the various positions in the debate. The debate about philosophies of pricing and about the allocation of costs are in fact very different ones. Their collapse in the public discourse into one debate -- primarily about restructuring rates and competition -- thus confuses the issues and generates public controversy.

Background data:

(a) Introduction: To outsiders, and even to many of the participants in the telephone pricing debate, it appears as though there is much unanimity on the terms and definitions of the debate. The meaning of the concepts "value of service" and

""cost based" pricing", the merit of universal service, the need for increasing competition, and the apparent transition from one approach to the other, seem self-evident.

To begin this study, then, each participant in the consultative study was asked for his or her definitions of these basic concepts, and for his or her perception of the current situation. The easy agreement upon the concepts to be used to describe the telephone pricing debate evaporated upon closer questioning. The purpose of this section of the report is to illustrate the various and conflicting understandings associated with the concepts of "value of service", ""cost based" pricing", "universal service", and "basic service". It concludes with an assessment of the significance for public policy of this terminological confusion.

(b) *The Mongeau report*:: The Mongeau report provides a useful starting point for describing the conventional approach to telephone pricing policy. According to the report, telephone companies have developed two key rating principles for local service, company-wide rate averaging and "value of service" pricing.

The Mongeau report defines company-wide rate averaging as: "the rates for services with similar features are the same throughout a telephone company's operating territory, regardless of the type of terrain, location, technology employed etc.."[1]

"Value of service" is defined in the Mongeau report as pricing that takes into account the "value" of a service for different types of users. The example most often given of "value of service" pricing is that of creating different rate groups for business and residential subscribers. The telephone service is said to be more valuable to businesses than it is for residential users. Businesses are charged more as a consequence. Another example of "value of service" pricing is that "the rates for local service...are higher in exchanges with a greater number of access lines (subscribers in larger rate groups, who have access to large numbers of telephones (subscribers in larger rate groups, who have access to large numbers of telephones without incurring long distance charges..)".[2]

In pricing long distance services, the Mongeau report notes that different factors are taken into account. In long distance, the customer pays the same price whether he or she is a business or resident, or whether the call originates from a rural or urban area. The cost of calling varies according to the distance involved (but not according to the technology used or the difficulty of the terrain). It also varies according to the discounts offered by telephone companies for particular groups of services or for calling during particular time periods.

The Mongeau report suggests that these two pricing practices affecting pricing for local calling -- company-wide averaging and "value of service" pricing -- are the product of the monopoly environment in which the different telephone companies now operate at least with respect to the provision of local telephone service. It suggests that different principles apply in pricing services for which there is competition.

The alternative pricing policies discussed by the Mongeau report -- including rate restructuring, compressing the number of rate groups, reducing or eliminating the business/residential differentials, making extended area service more generally available, creating an "access charge" as is now done in the United States, or introducing Local Measured Service -- are all based on the assumption that the environment for pricing telephone services has been changed by the introduction of some spheres of competition within it.

Implied in the Mongeau report is the assumption that at least in the case of competitive services, and possibly more generally as well, a movement towards "cost based" pricing is generally desirable. In this, the Mongeau report echoes but does not fully endorse a strong sentiment in the international debate and in the academic literature in favour of "cost based" pricing.

(c) The source of the definitions: Several groups expressed questions about the source of the definitions considered unexceptional by the Mongeau report, and about their general applicability. For example, one group suggested:

> I don't think Bell always means the same thing when they use the terms, and when I listen to what they are saying, I get the feeling that we are talking about different things, but not all the time. The terms are so loosely used for so many different things. I am quite confused... They have a language of their own and this language becomes very flexible for whatever term or issue they are dealing with. (community service group)

Others commented on the use of the term "rate rebalancing" to describe one of the options being proposed by a telephone company as an alternative to the present system. It was suggested that:

> We don't call it rate rebalancing. We think that rate rebalancing...suggests that something is out of balance and that it should be adjusted in the natural order of things. Whereas what they are proposing to do is change the prices for long distance services and consequently for local services. (government official)

A regulator commented that the terms are derived "basically from industry", and more particularly from the rate principles in particular applications presented to the regulators. The CRTC, this person noted, had to some degree inherited the principles of telephone pricing from the industry, although it had also to be guided by its legislated terms, such as "just and reasonable".

(d) The "value of service" concept: The term "value of service" had a number of different connotations to those we interviewed. For many, the definition of "value of service" corresponded to that of the Mongeau report. A business group noted that "they charge the local business and institution rates that are roughly three times the residential rates, because they feel that for businesses, the phone is at least three times as important." In general, the most rigorous definition of "value of service" pricing related exclusively to the creation of different rate groups for business and residential subscribers, a decision that was seen to be based exclusively on marketing

considerations.

What then of the distinction between urban and rural rates, or the manner in which local and long distance calling had traditionally been priced? In the case of the rural/urban distinction, a different rationale was added for what was seen to be a distortion of costing principles in pricing telephone services. Rural telephone service was likely to cost more to install than urban service, it was suggested. Yet rural customers traditionally paid less than their urban counterparts. It would be difficult to argue that a telephone means more to a rural subscriber, although some of the interviewees did suggest this. "Value of service" pricing in the context of the rural/urban distinction was not so much a product of a marketing strategy, but was based instead upon the fact that the rural subscriber had access to a smaller number of other subscribers within the local calling area than did his or her urban counterpart. As one government official noted:

> As I understand it, the rationale is simply that the more people you can call for free, the higher the rate. And that is supposedly the way that local service prices were developed over the years.

The local telephone service was less valuable, then, because there was less of it available, or fewer people to talk to. This too is usually considered to be "value of service" pricing and on occasion, the same rationale is extended to the pricing of specific services. A telephone company official suggested, for example:

> If you look at the product line, for example, with the host of different features that might be available from different terminals, your product manager will be price positioning these products according to any number of criteria that he has in mind, but that generally could be covered by the term "value of service". ..I put another button on your phone to allow you to do something, but the rate that is applied to that may or may not be cost justified.

It should be noted that several people attributed the rural/urban distinction to the corporate growth strategy of the telephone companies, and not to the "value of service" rational described above.

Our study found that the term "value of service" pricing is also used to describe the differences in the approach to pricing local and long distance calling, although the terms "flat rate" and usage sensitive pricing might be more appropriate in this instance. The term "value of service" has been extended as well to include the conventional pricing arrangements between local and long distance service.

In this instance, no one claims that the current pricing arrangements with respect to local and long distance reflect a different valuation of the services by consumers. Rather, in this case, "value of service" pricing is used as a general term covering all aspects of pricing as it has conventionally been done. In this instance, "value of service" takes its meaning from the contrast between "value of service" and "cost based" pricing, the latter being advocated by some (and resisted by others) in the discussion about restructuring telephone rates.

In summary, then, the clear definition of "value of service" pricing offered by the Mongeau report is less clear on close examination.

> For some, it refers quite specifically to the marketing and corporate strategy of offering services on a different price basis to different groups of subscribers.
>
> For others, it reflects a rational assessment of the technical capacity of the service being offered. Telephone service is less valuable to rural subscribers because they get less for their money.
>
> For others, it refers to a basic distinction between the conventional approach, called for convenience "value of service" and the newly proposed approach, again labelled for convenience by a single term, "cost based" pricing.

In fact, most people interviewed used the term "value of service" in the last and most general sense, as a kind of generic label for all the decisions that have historically been taken -- for whatever reason -- in the pricing of telephone services in Canada. For example, one interviewee told us in response to a question about the relationship between "value of service" and flat rate pricing:

> No, it is simply a term used to refer to...it is a goal. It's not a pricing scheme or anything like that. It is simply a goal to get as many people as possible hooked up. (US government official)

A Canadian telephone company official responded as follows to the questions, "How would telephone company officials describe their approach to pricing? Would they describe it as "value of service" pricing?":

> A. Oh yes.
>
> Q. Would different officials describe it differently?
>
> A Each deals with a different subscriber mix. The traditional view is there is so much money that you have to raise, and you raise it the best way you can. You have to increase in growth to offset inflationary pressures.

There are two consequences of using the term "value of service" in its generic sense to refer to the conventional means of pricing telephone services. First, a number of issues which are not immediately associated with "value of service" are brought into the debate.

A great many people spoke at length about local measured service, for example, as the alternative to "value of service" pricing. Others included the question of restructuring local and long distance rates, the costing methodologies of the regulators, the policies of the CRTC with respect to hearings and disclosure of information and the changing structure of ownership within the telecommunications sector in their discussion of "value of service" pricing.

These issues are relevant only because the term "value of service" is seen to refer to everything that has been done in previous years about the pricing of telephone services, and because "value of service" pricing provides a point of contrast against which to measure specific new policy alternatives.

The consequence of grouping all the current policy options under one category, "cost based" pricing, is that the differences between them are not made clear. In fact, several measures currently being considered by the CRTC do not fit into either category of "value of service" or "cost based" pricing, but these options are mistakenly being considered as reflecting one or the other approach.

This situation has led to several anomolies. (1) *While regulators claim that "cost based pricing" will not be adopted in the foreseeable future, a number of groups see evidence that it already has been adopted.* For example, one regulator claims that the CRTC has "rejected "cost based" approaches by and large at this time", and that it will not do otherwise in the foreseeable future. He cited the decision about CN-CP interconnection with the Bell system as evidence to this effect, and argued that the various specific proposals being considered and adopted by the CRTC are viewed in their own terms, and not as part of a general shift in regulatory philosophy. Yet for many people we interviewed, all of the proposals and actions of the CRTC are considered as part of a change in the general orientation of the CRTC, and each specific proposal more or less as a step in the transition from one approach ("value of service" pricing) to another ("cost based" pricing).

(2) *The second consequence of using "value of service" to refer to the historical practices in pricing telephone services is that it adds a different set of issues to the debate.* For example, the term ""value of service" pricing" are associated with charging what the market will bear. A telephone company official was quite frank: "Even in a monopoly environment, it is a question of what the market will bear in some sense." A government official echoed a view we heard often:

some sense." A government official echoed a view we heard often:

> It would be nice to see if someone actually said, way back when, we're doing this because of this. I am of the suspicion that they simply set prices at what they thought the market would bear, and then justified it afterward, twenty or thirty years after they did it...They simply had prices, and they knew what their total costs of running the business were. And if they were running short, they went in and raised prices for whatever they thought they were most likely to get away with.

From this perspective, any rational assessment of the relationship between costs and price is obscured. "Value of service" pricing is associated in everyday terms with predatory behavior, with "robber barons" and with a lack of social responsibility. We encountered such a sentiment even from a telephone company official who noted that "if you are a business your telephone is more valuable to you because you earn money from it. The telephone rates you pay are tax deductible." He might have put it in other terms, that businesses are charged more because in fact telephone services cost business less than they do for residential subscribers.

Yet "value of service" pricing is also associated with cross-subsidies, and in particular, with cross-subsidies designed to achieve redistributive effects. As one social sector person noted:

> It (the telephone) is a service and it ("value of service" pricing) is a kind of pricing that basically was saying, 'look this is an essential service and it should be made available to everyone'.

He continued:

> When I see 'value of service', I understand some form of cross-subsidization. You need to have it. No telephone service can be universal, if there is no cross subsidization. It is really regressive what we're doing, what telephone companies are doing now. In the beginning, Bell Canada used to have all sorts of small companies in the West. They wouldn't serve them very well, so the governments there said that they would nationalize the companies to get the rates necessary to develop telecommunication services. The provincially owned telephone services have grown because of the cross-subsidies from their more lucrative services...that is the only way

> cross-subsidies from their more lucrative services...that is the only way telephone service could have been developed in those areas.

Another person from the business community made the same argument, but in negative terms:

> I don't know how many times they can legitimately flog that "value of service". Maybe there is some higher value to the pizzeria being able to receive incoming calls than there is for individual residences to be able to call out and receive their pizzas....The cost of puting the service in the homes is subsidized by the costs of installation in business, and if we want to facilitate business start-ups, the current system works against it.

Several individuals, including from telelphone companies, referred to this cross-subsidization as "pooling" rather than "subsidization", and indicated that the revenues from different services were "pooled" so that those services from which less return can be expected can be provided. For example, one official told us:

> It is a kind of impersonal thing. One way of looking at it -- that I have gone through several times without flooding myself with cost separations -- is that there is a group of services that probably contribute, are net contributors, to the overall revenue pool, and there are a group of services that are net drainers to the overall revenue pool. They are impersonal. You can't tell -- if I put my finger on some farmer in Saskatchewan -- I can't say whether that guy is a net drain or a net gain on the system... It's very subjective about whether it's fair. (telephone sector official)

Some people we interviewed claimed that the attack on "value of service" pricing in this instance is an ill-disguised attack on redistributive policies, or at least using pricing mechanisms to achieve them. The Mongeau report, for example, states that it is generally agreed that redistributive policies should be achieved through taxing and expenditures policies of the government, and not through regulation. In our study, we found a lack of agreement with this statement in the Mongeau report, and indeed, a significant body of opinion in favour of achieving social objectives through regulatory policies.

These secondary issues -- the activities of members of the corporate sector, and *the value of achieving social goals through regulatory policies -- are very much a part of the discussion about the merit of "value of service" pricing. We might go as far as to suggest that these issues, not the specific merit of proposals that might be described as either "cost based" or "value of service", are at the centre of the debate about how telephone services should be priced. If we are correct, then the assessment of the consequences of any specific option, such as was attempted in the Mongeau report, falls upon deaf ears, for something other than specific arrangement is at issue in deciding whether to restructure local and long distance rates.*

(e) "Cost based" pricing: The meaning of the term "cost based" pricing seems self-evident but is no less difficult than that of "value of service" pricing on close examination. In regulatory parlance, it is associated with "just price" but as one American official noted:

> Well, I don't think we (the FCC) worry about what a "just price" is. I don't think anyone ever decided what a "just price" was. Some prices may be said to be unduly discriminatory, or unreasonably high or low. But the agency has moved toward the view that prices should be related to costs, and that prices that deviate too much from costs are unreasonable or discriminatory. But we don't have any better idea of what a just price is than medieval philosophers.

A Canadian government official told us:

> I haven't seen a definition of that ("cost based" pricing)...I mean people talk about it, but I don't think anyone has a definition..that is, what would constitute efficient pricing. I don't think anyone at the CRTC or the DOC is aiming towards making prices identical with costs...I think they are driving at lowering long distance...to the point of what the market, i.e. the voting public, will bear.

One person we interviewed called "cost based" pricing "a very slippery term"; another suggested that the term refers simply to the proposals being brought forward now by business. Several others refer to the costing methodologies used in "cost based" pricing or at least in determining the cost of specific telephone services, displaying a lack of faith in such methodologies. Others refer to specific new services "cost based" pricing or at least in determining the cost of specific telephone services, displaying a lack of faith in such methodologies. Others refer to specific new services when discussing "cost based" pricing, suggesting that it is reasonable that these services be priced with a different approach. One consumer representative stated, for example:

> "cost based" pricing is certainly the islands around the continent, the continent being "value of service pricing". The telephone companies have made some in-roads towards "cost based" pricing, for example NSF cheques. We think that if someone gives the telephone company a NSF cheque, they should pay as a penalty, the cost of the company processing that NSF cheque. We don't think that the general body of subscribers should subsidize people who bounce cheques, so we support "cost based" pricing there. We support "cost based" pricing when it comes to Directory Assistance, but "cost based" pricing in terms of the majority of telephone company revenues is minor.

Others yet tie the concept of "cost based" pricing to the issue of competition within the telecommunications industry.

It is important to step back for a moment from the debate about telelphone pricing philosophies as we found it through our consultations. The term "cost based" pricing does have a specific definition within the academic literature. As such, it is attached to several quite different rigorous methodologies and to the systematic modelling of corporate behavior in different competitive environments. It is not within the scope of this study to comment on the merit of different arguments or specific methodologies proposed within the academic literature, even as these methods might be applied in day to day decisions by governments and regulators.

The purpose of this study is to determine how the clients of telephone pricing policies use and understand the terminology in the debate in which they participate. The use of such terms as "cost based" pricing in the public debate often does not reflect the specific arguments advanced in the academic literature, nor does it refer to particular methodologies of pricing as discussed in that literature. The lack of clarity attached to the term "cost based" pricing, and the suspicion with which costing methodologies are viewed, are intrinsic to the current debate about telephone pricing philosophies.

In the current debate about telephone pricing philosophies, the term "cost based" pricing, like "value of service" pricing, is often a generic one. It refers to the general approach of regulating with respect to costs. It is used in contrast with "value of service" pricing, more or less as a description of changes in regulatory philosophy. A telephone company official described the current environment in the following terms:

> I guess what we are looking at is a change from our traditional role...not a total change but more emphasis on the "cost based" side. We have come to feel that it is more appropriate to charge the customers who are using the services for the services than to charge totally on the "value of service". "Cost based" pricing will never be practical. There's going to be high cost areas, and there's going to be low income people who need some type of support...

As we noted above in citing a regulator's comments, "cost based" pricing is a term derived from the submissions to regulatory authorities and from the policies being advocated -- or rejected -- by various client groups of telephone pricing policies.

Finally, in almost every case, including the Mongeau report, the introduction of a "cost based" principle is tightly coupled with the question of competition. Competition, and the threat of "by-pass", is said to have forced the telelphone companies and the regulator to re-evaluate their approach to the pricing of services to incorporate some elements of "cost based" pricing.

It has forced a re-examination of the degree to which telecommunication services should be regulated, and an assessment of specific services to determine whether they should fall under the regulatory mandate.

For example, in several interviews with telephone company officials, the conversation centred upon their assessment of the feasibility of competition and the terms under which it would be incorporated into the telecommunications sector. Some of these officials argued that the threat was exaggerated, a method of restructuring pricing policies within specific companies to eliminate competition for new services.

Others suggested that the competitive pressure was real, and came from sources other than by-pass, citing the potential of such services as cellular phones as examples. Finally, other officials stressed the importance of what they called "the level playing field", a familiar refrain in the current debate about trade and regulation. In each of these cases, "cost based" pricing was linked to competition, either as a desirable means to an end or as the inevitable result of changes in the environment and technology for telecommunications.

As a result, the debate about the merit of "cost based" pricing is at the same time a debate about the merit of competition, the value and feasibility of deregulation and the potential for change within the telecommunication sector. As was the case with "value of service" pricing, these issues -- not specific policy options or costing methodologies -- are at the heart of the debate about telephone pricing philosophies.

Again, if we are correct in our assessment, then neither the options laid out in the Mongeau report nor the specific actions taken by the CRTC address the primary concerns or objectives of many of the participants in the telephone pricing debate, however worthy they might be on other grounds.

(e) The question of universal service: Canadians have just been through a major debate about "universal" social services, such as old age pensions, so it is not surprising that the issue of universality is a contentious one and that wide-ranging notions of universality are applied to the provision of telephone services. It is worth reviewing briefly what "universal" means in the parlance of the current debate about social services.

reviewing briefly what "universal" means in the parlance of the current debate about social services.

A universal social service is one provided to all Canadians without resort to the criterion of need or the ability-to-pay. It is a service generally funded through taxation, but the costs of providing some universal services are offset by individual contributions to government insurance programs. These contributions take into account the individual's ability-to-pay. In recent years, a new method of dealing with universal services has been introduced, which is to use tax credits as a means of redistributing the benefits from universal services without introducing any ability-to-pay criterion into their provision.

It is important to note that not all universal services are designed to achieve a redistributive effect. Of course, the family allowance cheque means more to a welfare family than it does to a millionnaire, but it is often noted that for some mothers, the family allowance is important because it constitutes the only source of her discretionary income in spite of the level of her family income. Hospital services are only indirectly redistributive, inasmuch as they are provided without reference to a person's ability-to-pay. Good hospital service is considered to be an entitlement or basic right of all Canadians, and one that is and should be supported primarily through the taxation system.

From this brief overview, two aspects of "universal" services become apparent. The first is the distinction between universal services and services that use a criteria of need and ability-to-pay. For example, even if some redistributive effect is achieved through the child tax credits, the universal family allowance payments are not designed to take account of the recipient's need. Nor are hospital services provided on an ability-to-pay basis. Services are universal, when neither need nor ability-to-pay determine whether they will be provided.

The second aspect of universal services is that they are associated with basic entitlements or rights, common to all citizens regardless of the cost of providing them. Indeed, so fundamental is this notion that universal services constitute rights or entitlements, that scandals about millionnaires collecting their old age pension have no effect upon the strong public support for maintainng such universal services as the old age pension.

There are some obvious differences between hospitals and telephones, between old age pensions and affordable local calling. The companies that provide telephone services operate in the marketplace with a variety of services, only some of which can be considered to be "universal" even in the widest sense of the term. Many of these companies are private ones, and their social service mandate is one that is generated by regulation, partly as a result of the monopoly they hold with respect to the provision of some or all of their services.

Local calling is a service, much like heat, water and cable. While many would argue that local telephone service is essential to the well being of individuals and the community at large, the "universal" mandate imposed upon the telephone companies is different in scope, if not in kind, from that imposed on these other services, which might be considered equally "essential". The circumstances under which telephones were first regulated, and viewed as a "universal" service are the product of the particular history of telephone regulation as opposed to other types of service or even public utility regulation. In this, telephones are treated as a special service, and in a different manner from heat, water and cable.

Finally, because the telephone service is provided by private companies in most cases, it is not generally considered to be a social service, in the same manner as highways or health care is. In part, this too is a product of the specific history of telephone regulation where many of the social obligations imposed upon telephone companies were the result of the economic regulation of the sector and the recognition of the monopoly status of its members. It seems obvious -- but perhaps is less obvious upon reflection -- that telephones are different from hospitals or education, and very different from such social benefits as old age pensions or family allowances.

In summary, *telephone service is associated with the concept of universal service. This means that it is associated, rightly or wrongly, with the provision of rights or entitlements. It is associated with services where the criteria of need and ability-to-pay do not apply. The telephone is considered, by virtue of its universality, to be an essential service. At the same time, the provision of telephone service is quite different from the provision of more conventionally universal services.* First, it is offered by companies, whose products and services include many that are not essential. Second, the historical reason for the regulation of telephones probably owes more to the monopoly status of the service providers than to government policies about the essential nature of the service to be provided. Finally, other utilities which might equally well be considered as essential are regulated on a different basis, and not as "universal" services. The provision of telephone service is unique because it is not a social service and it is not always provided by a government agency, but it is regulated with respect to achieving universality as if it were.

The association of telephones with universal service, or even with the more limited phrase "universal availability of affordable telephone service" clouds the picture. It blurs the differences between social services and the telephone service. It supports the argument that telephones are an essential service -- an entitlement of all Canadians -- and that telephone service plays a social role in Canadian society. It underplays the problems inherent in using a mix of public and private companies to provide a social service. Finally, it underscores a distinction between telephones and other services provided by public utilities and other companies. In sum, it places local telephone service in a special category, as a right or entitlement of Canadians, similar to social services and different from the services provided by other utilities.

It is the association of telephone service with universality that lies at the crux of the current debate about telephone pricing. As we will demonstrate below, local *of the current debate about telephone pricing.* As we will demonstrate below, local telephone service does have a special status in the minds of many of the groups we interviewed. It is viewed as essential, as part of the fabric of Canadian life, as a basic entitlement of Canadians and as integral to the provision of social services (if not as a social service in its own right).

One way to make this point about the significance of universality in the telephone pricing debate is to refer to the controversy over local measured service (LMS). The proposed introduction of LMS was greeted by a public storm. LMS appeared to threaten the universality of telephone service, not so much because subscribers might disconnect (a point made by some, but disputed by others) but because LMS had the potential to alter the universal basis upon which telelphone service had been offered.

The proposals for LMS seemed to undermine a basic entitlement. They seemed to render the availability of telelphone service on the basis of ability-to-pay, and to offer special provisions only for those in financial need. In other words, they contravened certain assumptions about universality that are widely held by Canadians. We will return to the controversy over LMS later in this report, and to policy options that might alter the basis for telephone pricing, because an examination of the "storm" is highly instructive for a more general understanding of the telephone pricing debate. At this point, it is more useful to describe how the client groups that we consulted viewed "universality".

For many, in particular from government and industry, the question of achieving universality is a technical one. In this instance, universality is providing service to as many Canadians as possible. As a government official described it:

> To me it means anyone who is in a position to have telephone service -- by that I mean that you are living within a reasonable distance from the existing network; you're not a hermit living miles from the nearest telephone line -- can within reason afford to have telephone service. If you chose to have it, you should be able to afford to have it. It would be at a

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Obviously the price of local telephone service will affect the demand for it, even though the demand for local telephone service is probably relatively inelastic. An FCC official told us that the working definition of universal service was "that people shouldn't be pushed off the network because of costs being too high". Yet a regulator noted that "companies have never been required as a principle to make service available to those who cannot afford it." If these views are taken as guides, then universality is defined in technical terms as providing a service that is sufficiently affordable that no significant proportion of its current subscribers will disconnect because of a price increase. It is definied in negative terms, and in terms of the consequences of any change in telephone pricing policies.

Another way of viewing universal service is in terms of the provision of telephone service throughout Canada. Again, this is a technical definition of universality, since what is of concern is the number of communities that can eventually be provided with service. In this case, the debate about universality is not about the significance of those who disconnect. It is about how much expenditure can be justified to achieve the goal for all communities. For example, in his discussion of the issues underlying the debate about universal service, a government official noted:

> You happen to choose to live two hundred miles back in the woods, and it's not accessible. Nobody would expect a telephone company -- well I shouldn't say nobody -- at their own expense to run a telephone line just to service one guy, any more than you would expect the government to build a hospital just for him.

Some called genuinely universal service "an impossible goal", emphasizing the costs involved in reaching the last pockets of potential subscribers in remote communities. They drew attention to the changing expectations of the telephone service, and the fact that the demand for genuinely universal service is a relatively recent one.

Another technical definition of universal service links universality to the level of service in communities. An American regulator provided the following anecdote to illustrate her point that universality was associated with a level of service, not the simple provision of it:

> I think that the definition of universal service has changed. When the term was first used, universal service meant service everywhere. I took out a videotape of an old movie with Gary Cooper about a man who went from a hard working but sometimes drunken lout to a reformed Christian person, conscientious objector to a congressional medal of honor person. It's a famous movie, and it shows life in a small Tennesee town before WWI. One of the important incidents in the movie is when a telephone gets installed in the central store.
>
> I think universal service first meant getting a telephone installed, which for rural Americans changed their relationships dramatically and provided a basic connection. Then universal services gradually evolved to getting a telephone actually into your house, which is the ultimate availability. And that became the goal of universality.

From this perspective, universality may now extend beyond the idea of getting a telephone in every home. One public interest group suggested, for example, that "universal service does not mean a two party system" and several farm groups echoed the same concern that the provision of universal service meant private line service, not two or four party service. The question of whether a telephone in a boarding house constituted universal service for its residents (who would be considered as non-subscribers) was raised by a number of people, with some arguing that it was not, and others suggesting that any form of residential access to telephones constituted universal availability.

In the discussion of universality, attention was drawn to the fact that the price of local telephone service is considerably different in different parts of Canada. This too affects the perception of whether Canada has achieved a universal service. A business group noted:

> I don't think that anyone has implicitly or explicitly agreed upon what would constitute universal access. It is just this vague goal that everyone who wants a telephone should be able to afford one. If you look at universal service in terms of residential costs, the basic service cost in New Brunswick or in Saskatchewan, there is a significant difference in the price of the local service. Saskatchewan subsidizes theirs like crazy and New Brunswick doesn't, yet the penetration rates are not very different.

In the mind of this person, universality was tied to the price paid by the subscriber for telephone service. Saskatchewan could claim to provide a more universal service than a province such as New Brunswick.

There is another view of universality, one that owes more allegiance to the general public perception of "universal" described above than to any technical discussion of telelphone penetration, level of service or cost. This involves the view that the provision of universal service represents an important social policy. Missing from this view is any extensive consideration of telephone penetration. Instead the focus is upon the role played by the telephone within the country as a whole, the impact of the loss of telephone service for specific groups within society and the need for national telecommunication policies that support the extension of telephone service as a national priority.

Universal service was defined to us in various different ways as follows:

> .... Everyone should have universal access to the telecommunications system, but the broader question is that everyone should have access to all services offered by society, be it health care, the postal system or whatever. Telephone service is a right, wherever you may live. There would probably be a general overall lowering of the social cost if universal service were truly universal. (business and professional group)

> .... I think there is a growing sentiment that everyone has a right to affordable telephone service. More people are regarding the telephone as a necessity rather than a luxury. One of the questions I was asked in this job

necessity rather than a luxury. One of the questions I was asked in this job is why should people have access to telephones, why are telephones more important than the heat in your home? Presumably a lot of people say that people have a right to affordable heat, but the heat in your home can't call an ambulance if you have a heart attack, so telephones are a necessity because they keep people connected to vital services (FCC official)

.... If a person can't afford to pay, then, like medicare, it should be for free. If my mother cannot afford a phone, I think it is up to the government to provide her with one to keep her out of the doctor's office. (farmer)

.... To me it seemed that years ago, universal service meant being able to be hooked up with very little price and little consequences of doing so. If a person has to change his or her telephone habits, that is a problem, although not one the telephone companies recognize. (community service worker)

.... I think a telephone system could be made almost free. It should be going in that direction. The cost of telephone service to Saskatchewan has to be a very expensive thing. I don't think the people in Saskatchewan are paying the full cost of getting that service, and I don't think they should have to. Our province is taking that attitude, and I would be upset if I thought that Ontario and Quebec were introducing a scheme to break up the concept of universality. The (telephone) service is a lot like a train service. The point is that Canada is a unique country where you have densities of population and very sparce populations. The unique thing (about Canada) is that the sparce populations play a significant role in the total economic activity of the country. (Saskatchewan farmer)

.... Universal service means more than just the possession of a telephone, but how useful is it to you. In a very real sense, the ability to make cheap long distance telephone calls makes the telephone more accessible. If we are able to get cheap data links on board telephones, this will lead to an increase in the universality of telephone services. (American regulator)

.... It is in the national interest that you should be able to pick up your phone and expect that your local telephone company has got a network that will permit you to call vitually anywhere in the world. (government official)

.... The CRTC's desire is to equalize access to services (the example given is the service for the hearing impaired). This is what we mean by universality. (Canadian regulator)

.... It's a social statement in addition to a political one. The access part of the question is key to defining what universal access is. (community service worker)

It is important to draw the distinction between the two views of universality evident in these quotations very clearly. In the first instance -- in the "technical view" -- it is relatively easy to determine whether universality has been achieved. If the telephone penetration rates are high, if people do not disconnect when a rate increase is approved, and if almost all communities are served, then the goal of universality has been achieved. Questions about telephone pricing philosophies are only relevant if they affect the demographic picture of telephone availability. It matters little if a "value of service" or "cost based" approach is used as long as no particular group is disadvantaged to the point where it can no longer receive the service and if a reasonable attempt is made to reach all communities.

The second view of universality -- a social view -- is evident from these quotations. It is directly related to the philosophy of telephone pricing. It is concerned with whether criteria such as need and ability-to-pay are used to determine if service will be provided. It is concerned with the direction of national policies that rely upon a "user pay" approach to the provision of essential services. It is concerned with the level of service provided, but in terms of whether some segments of society will be empowered with more access to information than others. In other words, it is focussed quite explicitly on how telephone pricing is done.

From our perspective as interviewers, it is easy to understand why regulators and telephone company officials might express dismay with this second approach to universality. After all, it is the task of each to put into practice the concept of universality. It is much easier to count the disconnections, to measure levels of penetration, to evaluate the construction programs of telephone companies to determine whether "universal service" has been achieved than it is to stand back and evaluate the significance of one's social approach to pricing. Moreover, if one is preoccupied, as many telephone company officials and regulators seem to be, with questions about the extent to which competition exists or is feasible within the telecommunication sector, then questions of national policy (except perhaps those evaluate the significance of one's social approach to pricing. Moreover, if one is preoccupied, as many telephone company officials and regulators seem to be, with questions about the extent to which competition exists or is feasible within the telecommunication sector, then questions of national policy (except perhaps those concerning deregulation and competition) seem somewhat out of place.

This frustration notwithstanding, the author of this report considers it essential to draw attention to the other view of universality, the non-technical social view.

The kind of concerns raised with us -- what we have called "the social view of universality" -- cannot not be addressed by statistics about the level of telephone service penetration, or by preliminary estimates based on economic modelling about the number of subscribers that might disconnect. Indeed, the notion that there might be a magic number of disconnections below which no concern was necessary was itself a matter of concern.

In effect, the definition of universality that was common to a large number of the people we interviewed takes as its point of reference the current system, and uses the universality criterion as a means of judging any proposal for change -- competition in terminal attachments, the introduction of LMS, the restructuring of rates -- in terms of what it will do to the present system.

The telephone system as it stands provides the basis for the evaluation; it can be improved, of course, to become *more* universal, but the current system is considered to be basically sound. A*ny* changes in telephone pricing policies might well undermine the system as it stands, altering -- in socially undesirable ways -- *how* service is provided.

For example, a consumer representative noted:

> We think it can be improved, but for talking purposes, we say that what we have today is universal service. There are some low income groups that

> don't have it, you know, a very poor penetration, but, by and large, it is what we have today.

To be sure, emphasis is placed on the potential disconnections that might occur if local rates are increased. The burden of increasing costs, especially upon the welfare poor, is noted. The focus is elsewhere, however. The proposal to restructure rates, and to change the philosophy of regulation in the telecommunication sector are both seen as national policies that alter the priorities of the government and the direction of its social policies. Telephone policy was often compared in our interviews with railway and postal systems policies.

The reaction to Lifeline service -- a special low rate for a basic service that might be introduced if rate rebalancing were to increase the price of local telephone service beyond what pensioners and welfare reciptients could afford -- can be viewed in the same way.

According to a technical definition of universality, the introduction of Lifeline service makes it possible for people who would otherwise be forced to disconnect to receive a minimum level of telephone service. From the technical perspective of universality, the introduction of Lifeline service is consistent with the principle of universality. According to the social definition of universality, however, the introduction of Lifeline service represents the abrogation of universality. Criteria of need and ability-to-pay are introduced with Lifeline services, and Lifeline is simply a type of "welfare" for those who receive its limited service.

In summary, there are a number of associations with the term universal that impinge upon the discussion of the universality of telephone service. These are reflected in one of the two views of universality described to us in our interviews.

> In one view, universality is tied to the issue of how telephone pricing is carried out, the philosophy and approach of government policies and regulation.

> This view can be constrasted with another view of universality, a more technical view. In the technical view, universality refers primarily to the number of households that can now or might in the future have at least two party telephone service.

The two views of unversality are contradictory and incompatible. The conflict between them lies at the heart of the current controversy over telephone pricing policies, over rate rebalancing, over competition, and most particularly, over the possible introduction of LMS. In effect, the various participants in the telephone pricing debate start with fundamentally different assumptions about universality, and thus are not amenable to compromise with respect to specific proposals.

(g) Basic versus enhanced services: As noted above, a key aspect for many people in the discussion of universality is the question of which services should be universal. For some, access to calling, a two-party line or a pay phone in a boarding house, was sufficient to ensure universality of the telephone service. For others, even a residential private line was not in itself adequate, for with changing telephone technologies, it is possible to view the home telephone service as more than a facility for calling.

The definition of "basic" service has changed in recent years. On one hand, the definition of the "basic service" has been narrowed. For example, one telephone company official sugested that basic service meant: "plain ordinary telephone service, just a black rotary on the end of a line with no other features". But when pushed about the inclusion of the telephone as part of this plain ordinary telephone service, given the liberalization of the rules for interconnection, the same official noted:

> A telephone isn't even in the basic service...the line, the access to the line, its access to the network. It has changed from that point, because the

> terminal became competitive and you didn't have to get it from the telephone company.

At the same time, however, considerable resources have been expended to upgrade the technical transmission facilities. Although these decisions have been made primarily with reference to new data and long distance services, the upgraded facilities are, in theory at least, part of the basic service now offered to residential consumers. The new facilities have features that have the potential to transform a home telephone into a "communication centre", to connect residential subscribers to on line data services. For some people we interviewed, the definition of "basic service" should include the full panoply of facilities made possible through technological development. For example, a union official stated:

> At the present time, direct access to a data system might not be considered a basic service... but as technology develops it becomes an essential service because access to all that technology can provide will only be available if you can access that technology. Twenty-five or fifty years ago someone could have argued that the telephone is not a basic service, and within a very short period of time, we'll be saying that access to data systems is essential.

Another union official echoed the same theme:

> Access to all services is the proper way to go. Access to basic or two and four party systems is not. It is outdated, and as everything else in this society, this definition of access must change as the technology changes. The only viable definition is one that is relative, one that relates to changing the systems as they become available. Access should not be limited to giving a black device with a dial on it and calling it access. It cannot be frozen in time.

A community worker drew attention to developments in Saskatchewan:

> If we look at what Sasktel is doing...they've put in some fibre optics where farmers can get access to the databanks. If you cost base these things, you won't be able to offer these services to everyone. So the amount of information that people get..the gap will get wider and wider all the time. Businesses will have more and more information at their disposal. Small business will have less and less, and residential subscribers -- if they have a telephone they'll be happy about it.

And another community service worker argued:

> Basic service is the best possible telephone services you can offer to the widest number of people within the system. If you look at basic services in another way, you wind up with Lifeline service, LMS, all sorts of bandaid solutions to try to keep people on (connected).

There is another, quite contradictory view of the distinction between "basic" and "enhanced" services. In this contrary view, any expansion of facilities was seen to add costs to the local network (thus promoting rate restructuring). These costs were incurred, it was argued, because of the needs of non-residential subscribers. The additional costs were part of creating a plant that could service purchasers of data communications, primarily larger business enterprises with international or continental connections.

Adding the new facilities to the local networks, and charging residential customers for the improvements, broadens "basic services" at the expense of the residential subscribers (under new restructured rates). What was needed for residential subscribers was a genuinely *basic* service, only the service necessary to allow residential users to engage in local and long distance calling. All other technical developments should, it was argued, be paid for by the new users of these services (generally large businesses), and not by residential subscribers to the local telephone service.

Some of the debate about the distinction between basic and enhanced services also concerns decisions about how such services will be marketed. Indeed, some smaller telephone companies offer special services, such as call forwarding, as an incentive for their customers and as part of their basic service. As a company official from one of them noted:

> I suspect that the Ontario independents have a higher percent of digital switching than Bell does. They have been changing over at a prodigious rate. The thing that Bell does is to price these services quite high, while the

> independents tend to price them lower. Mind you their rates are so low that it would not do to raise them all that much. The norm for the independents is private line, in contrast with the accepted lowest standard of four party systems.

Marketing considerations aside, at the heart of the debate about what constitutes the basic service are questions concerning the nature of the local network, the cost of its modernization and the allocation of such costs for different types of services and among different groups of subscribers. For example, the extent to which digital switching is introduced, a major construction program undertaken or that such costs are depreciated are all questions that regulators consider in determining the rates not only for special services but also for the basic residential service. The debate about telephone pricing philosophies, and indeed as a consequence, about the usefulness of the "value of service" concept, is about how the cost of these developments should be reflected in the price of telephone service for residences and businesses, in the case of local or long distance service or in rural and urban areas.

Footnotes:

1. Jean Pierre Mongeau, *op. cit., p.* 27.

2. Ibid.

Part One: The Consultative Study
Chapter Three: The Objectives for Telephone Pricing Policy

Overview:

The different objectives sought by various groups for telecommunication policy can be identified. These objectives include strategies of economic development and job creation, social policies and, to a limited degree, competition.

The existence of different objectives for telephone pricing policy poses a problem for governments seeking to develop it. The questions cuch governments must ask are as follows:

1. to what degree should telephone pricing policy, or a national telecommunications policy, and be part of a strategy for economic development?

2. to what degree should there be an integration of telephone pricing or telecommunication policies and social policy objectives?

3. how are the perceived similarities between policies within the postal and telecommunications sector to be dealt with, given the strong public resistance to postal sector policies?

4. to what extent should the individual, and different interests of the provinces be taken into account in fashioning either a national telecommunications policy or a federal-provincial accord on telecommunications regulation?

Underlying all of these questions is the issue of whether emphasis should be placed, as the academic literature and indeed also the Mongeau report suggests it should, on economic efficiency within the sector at the apparent expense of both economic and social objectives of a much broader scope. In this context, it is useful to cite an excerpt from the Mongeau report:

> Opponents dispute marginal cost pricing on several grounds. First they argue that prices for some services should be lowered to promote availability

> to low-income or other individuals or to promote utilization. Countering this view, many economists argue that the government tax and expenditure system is more appropriate to promote such ends.[1]

For at least some of the people we interviewed, the suggestion that social and economic policy goals should be met through methods *other than* regulation was rejected on two grounds. First, the social and economic goals are seen to be integral to the regulation of telecommunications, just as they have been historically in the transportation sector.

Second, doubts were expressed that the tax and expenditure system could or would be used to promote the social and economic objectives described above, given the current inclination of most governments in Canada to curtail social spending programs where possible. Others argued that the issue also relates to whether government(s) would ever bring in a guarenteed annual income.

There seems to be a consensus among people we interviewed with respect to pro-competitive objectives. Whether we were speaking with unions, community sector representatives or telephone company officials, we found relatively little sentiment to support strongly pro-competitive policy initiatives in telephone pricing policy.

There is an obvious discrepancy between the public discourse about telephone pricing policy (which we believe we have identified) and the discourse in the academic or technical literature with respect to the benefits of pursuing pro-competitive policies. This discrepancy suggests that the seemingly "stop-go" approach of various governments and regulators to the introduction of competition reflects a fairly accurate perception of the concerns of the client groups of telephone pricing policies.

The research suggests that there is no groundswell of opinion for change. Indeed, it appears as if there is a strong and widely held sentiment against change, although, of course, there is some divergence of opinion among those we interviewed.

The change people are referring to id often described as one from "value of service" pricing to "cost based" pricing. Many of the people we interviewed would question the appropriateness of "value of service" pricing, some seeing it (as we noted in the last chapter) as nothing more than charging what the market will bear. Nonetheless, the transition to another approach, whether it be "cost based" pricing or any other, is not strongly endorsed.

Whether "value of service" pricing is beneficial, the current proposals to introduce a more competitive environment (and "cost based" pricing) is viewed with mixed opinion. It may be that the new competitive environment is a given, as the Mongeau report suggests, or it may not. In either case,serious questions exist about the desirability of endorsing any immediate change in the telephone pricing philosophy.

Background data:

(a) Introduction: Many of the people we interviewed called for a national telecommunications policy. Even among those who did not, there was a recognition that the kind of issues being debated in terms of "value of service" and "cost based" pricing were directly related to public policy questions, and more particularly to the regulatory philosophy that was applied to telephone pricing decisions.

This chapter addresses the question of the public policy for telephone pricing decisions. It identifies the objectives for public policy. It explores the priorities assigned to different objectives for such policy by the people we consulted through the research.

There are, in fact, quite a number of objectives for public policy. They range from something easily labelled "pro-competitive", to such specific objectives as "fairness" and "quality of service". It is useful to describe each of these objectives in turn, on the basis of the interview material, before examining the relationships among them.

(b) Pro-competitive objectives: In the fifth chapter of this report, the point will be made that many see competitive pressures as the factor most influencing change. What was surprising, then, was to find that relatively few -- in fact only a couple -- of the people we interviewed stressed the importance of competition as a desirable goal or objective of telecommunications policy. This is not to suggest that the lack of competition is considered to be beneficial, although some took this view and argued that only a monopoly-based industry could provide a genuinely universal service. Rather, the goal of competition was not one that was referred to as valuable in its own right.

This finding from the research is surprising because it underlines the difference between the analytical literature and the public discourse about telephone pricing policies. In the technical and analytical literature, including the Mongeau report, the goal of achieving as fully a competitive environment as is compatible with other policy objectives is given great prominence. As we will see in the next section, there are some who argue that the efficiency criterion -- which they relate to competition -- should be paramount in regulation and public policy. Indeed, the current transition in pricing policies is seen to be grounded in the response, a necessary and desirable response, to a new competitive environment.

We also know from reading the daily papers that deregulatory policies can be and often are very popular, and that pro-competitive policies often garner significant public support. *What is being suggested here is that the general support for pro-competitive policies (the extent of which cannot be gauged) was not reflected in the interviews about telephone pricing policies. Moreover, the impetus for reform that is easily identified in the technical or analytical literature is much* *less evident in the public debate that we have studied. Very few people listed competition as a necessary goal of public policies.*

There were a few exceptions. For example, a telephone company official endorsed the objective of competition saying:

> We are very much in favour of competition, yet we are not in favour of rate rebalancing and of the companies which drop their long distance rates and then say that the charge should be $38.00 for the residential phone instead of $14.00, because "all along it cost me $34.00 to provide that service and I was losing $20.00 and now want to make $4.00". Our opinion is that the telephone rates should really be in the competitive marketplace.
>
> With competition, you tend to find dramatically lower rates. Cellular is unbelievable. If you buy a phone in B.C. now, you have a choice of either telephone company. If you chose B.C. Tel, you would use their network, which is completely separate from the cellular one. A phone will work on either system.
>
> The point is that if you don't like either service, what are you going to do? You have a choice now (for some telephone services) that you don't have when you are at home or in your office. I happen to think that the choice is good. It keeps people on their toes.

As we interpret remarks from the more established carriers, there is some positive sentiment about competition within this group, but also many reservations. The concern about competition was most often expressed to us as a concern about the conditions under which competition would be introduced. For example, one of the conventional carrier officials expressed the following view when asked what would change if "cost based" pricing were adopted (and pro-competitive policies followed):

> Well, the rules would be different. Given the existing costing and rate structure, competitors would have an unfair advantage. The competitors would have an unfair advantage over the telephone companies because today it costs us far less to provide toll service relatively than it does to provide local service. They would not be interested in competing on that side of the business at all...They aren't going to pay back enough on the local side to make it compensatory for us to provide the local service to them.

The mixed view of competition from the established carriers -- which is hardly

The mixed view of competition from the established carriers -- which is hardly surprising -- was echoed in a more surprising comment by a business group representative. When asked about the importance of encouraging competition specifically in the telecommunication sector, he said:

> The overwhelming majority of our members supported CNCP getting into long distance service, yet for quite a large number of them, they do not have significant long distance uses. They probably would be hit more for telephone costs (in a more competitive environment) rather than less. Their self-interest is significantly offset by this concern to have competition and access to competition.
>
> I think that it related more to telephone service than I had thought. I put it down to the fact that they have seen what monopoly service leads to with Canada Post, and they have seen the reduction in the price of long distance calls. Some of the arguments we included were that Canadian businesses were operating at a competitive disadvantage. So perhaps it was a question of principles, because the reasons that our members join us is the fact that we are for the competitive marketplace, but the results (of more competition) in this case seem to be at cross purposes (with the principles).

There are some public interest groups that have consistently advocated pro-competitive policies with respect to other issues, viewing competition and deregulation as a means of reducing the cost of service to consumers. With respect to the issues involved in restructuring telephone rates, and indeed the provision of universal local calling service, however, even these groups express serious hesitations about the benefits to be achieved from competition in the pprovision of telecommunications.

As cited in the last chapter, these particular consumer groups feel that competition is viable in telecommunications only with respect to the "extras", and that "cost based" pricing is desirable in terms of such charges comparable to those imposed for NSF cheques. Even with these groups, who are generally well-disposed towards pro-competitive policies, a positive evaluation of deregulatory initiatives does not necessarily -- nor often, in this study -- extend to the provision of telephone services. And for many other public interest groups, where support for pro-competitive policies in general is limited, no support exists for pro-competitive policies in telecommunications.

The situation in Canada is often compared with that of the United States, where significant pro-competitive measures have been undertaken. It is worth citing a comment from an American regulator about the public response to these measures. Not surprisingly, he views the initiatives as positive in their effect. More interestingly, he dismisses some of the concerns of the consumer groups:

> Looking at the newly restructured U.S. industry on balance, while I see that it is not perfect, I think it leaves me pretty optimistic. And frankly I have not been able to identify the sources of the general unease about the divestiture...There are some professional consumer advocacy groups and others who are concerned. But even then, it is mostly channeled into consumer information, a little bit of general populism and hostility to a more market economy rather than great harm....I believe that a lot of the churn about how bad divestiture has been is basically coming indirectly from people who want things changed for other reasons.

(c) Economic objectives: The seeming lack of interest in applying pro-competitive policies to the telecommunication sector -- or at least to the provision of local telephone services -- does not mean that economic objectives are unimportant to those we interviewed.

Telecommunication was seen as a central aspect of economic development, and as a major contributor to the economic well-being of the country. The economic objectives were described to us in the following terms by different individuals:

> .... Who is going to be hurt?-- most of the businesses. It is going to be small business, yet this government keeps telling us that small business is the sector that generates jobs. Here we see that people are going to lose jobs. We see less consumers. We see jobs being taken away from the only area in the economy that is creating jobs. (union representative)

> .... Well, it is a big country, and it is spread out. The ease of communication is very important to us as a nation, and therefore one could argue that a lower

> price (for long distance calling) makes it easier. But lower is a comparative word -- compared to what? Let me give you an example. Some of the companies are charging $1.10 a minute for the longest haul long distance call in Canada at the present time. The price is going to go down to $0.94 with the reduction that has just been announced. Now I am not going to hide in the corner because the Canadian economy is going to boom so much because of this price reduction...
>
> If there is a national interest it ought to extend beyond the price. It ought to extend...We're net exporters of telecommunications, and (we have) a national interest in maintaining that position. I think there's a national interest in having a high tech workforce..and there's a national interest in the fact that the standard of living is a little better than it might be in some other country. Other industries do not have as big an impact as the telecommunications industry has in Canada. (telephone company official)

A union official expressed a similar view:

> We have seen the impact on jobs since terminal attachment was permitted, opening the door if you wish. We mostly represent telephone operators and technicians...within Bell Canada, when we talk about a 10,000 job loss that is within the clerical, telephone operators, technicians etc.. For example, the technicians were affected because a lot of phones that were to be connected were produced in the United States or in Japan.

In other words, the economic contribution made by the telephone and telecommunication industry is not simply connected to the price of their services, according to these individuals. Rather, it is tied to the role of the industry within Canada's export trade, the number of jobs that are created -- or lost -- as a result of government policies with respect to telecommunication, and the possible negative consequences of any change for small businesses.

For one person we interviewed, this led to questions about how the shifts in the economy should be reflected in telephone pricing policies. He stated:

> I think first of all, the telephone company had to be allowed to earn the cost of doing its business. You can't bankrupt telephone companies unless you wish to have governments run the whole thing. Beyond that, you can take one of two approaches. You can focus on pricing, whether it's "value of service" or "cost based" pricing, and that will be your standard and you will use it throughout the business cycle. This means that you will adjust the

> use it throughout the business cycle. This means that you will adjust the prices according to whatever the standard is. If the costs go up, then the prices have to go up, or if you are working with "value of service", if the value goes up, then the price goes up. The alternative is the approach that was apparently used in the United States in the thirties, which is to swing with the economy. Then it becomes a political thing. If times are tough, you don't raise local rates (so presumably you raise long distance). When times are better, you turn (it) around. (government official)

The notion that telecommunications policy would be used as an instrument of economic development policy is quite a familiar one in Canada. This view was expressed most clearly to us by interviewees from Saskatchewan. One stated:

> There's nobody in this province asking for low long distance rates..it sounds silly to say that, but what I mean is that there is nobody asking for rate restructuring in the province. We have the lowest rates in the country. Our telephone company does not make exorbitant profits, but they make a profit. On the other hand, what they do is take the money and invest it back into the province on the 250 million ILS program. The money stays in the province. (government official)

A telephone company official expanded on the same points:

> I wouldn't like to see local telephone rates go up just because business people in other parts of Canada want to have a better telephone rate, When you analyse business in Canada, it is local business that feeds the larger enterprises in other parts of the country...The government here promotes policies that can range from completely non-telephone businesses to certain policies with regard to telephone services. For example, in the past we've gotten involved in assisting to assemble the land that the commercial complex now sits on. The telephone company has pretty broad powers of land expropriation...A little more related to our purpose in telecommunications was our involvement in a coaxial cable distribution system for community TV. We got quite heavily invested in that business, although in the past year we have been getting out of those areas.

The potential benefits of competition did not offset the deleterious effect that the new pricing structure or rate restructuring might have. For this official, the activities of CNCP were hardly encouraging. "They haven't been very kind to us", he said. "They are always looking at the bottom line, and the bottom dollar line in a community like Saskatchewan isn't always the top consideration." He continued by stating:

> If you go back to the time when they put in the railroad. At that time it was cheaper to go on the American railroad system, yet the odd thing was that Canada decided to build its own. They made a conscious decision to spend multimillions of dollars because the railroads were the principal infrastructure at the time. They spent the money to keep the infrastructure in Canadian hands, despite the fact that transportation through the U.S. was cheaper. Now today, the principal infrastructure is telecommunications. However through free trade we want to drive an essential element of Canada's economy onto the American rail, the rail in this case being the telephone system. I am sure it would be even cheaper to go through their network, but we would lose an essential part of the economic infrastructure if we did that...Our argument is always that it is too important to the health, the economic health of our province to meddle with. (telephone company official)

The term "national interest" seems to imply a single objective that is or should be pursued across Canada. Some officials questioned whether there was a *national* interest in telecommunication, even if telecommunication was linked to economic development. When asked to define the national interest, a government official (not from Saskatchewan) said:

> There is certainly a national...there is certainly an interest by the various parts of the nation in telecommunications policy. If by national interest you mean a consensus, I don't think there is a consensus at the moment. You've got the Prairies, on one hand, with their own particular interests. You've got three companies that are provincially owned. You've got the eastern provinces that are not provincially owned, but they are provincially regulated. And you've got three others that are privately owned and federally regulated. Each of them has a different perspective on telecommunications, particularly in terms of the pricing of services. They see their priorities in different areas.

There is another dimension to the issue of telecommunications and economic development, tied again to the question of the national interest. At both of the workshops we held with community sector representatives, it was suggested that there were historical similarities between the telephone system and the railways, and more recent parallels between the telephone system and the post office.

For telephone company and government officials, the link to the railways is easiest to understand, although some have difficulty translating the general point into specific policies. For these people, the link between the telephone system and the post office is much more difficult to accept.

Nonetheless, for the people who raised the issue, the link between telecommunications and the postal system was an obvious one. The public reaction to post office policy is related to its current policies, which are seen to place service on a cost basis, and to consolidate services eliminating unprofitable ones. We have already noted the parallel drawn by one business group, who saw the monopoly status of Canada Post as one reason why its members were so firmly pro-competitive. One community sector representative stated:

> I think for a lot of rural people, this is a big fear. They have seen the postal services decline in their area. They have seen it become impossible. These people are very frightened when it comes to telephones, because they are the ones--they know the service will cost more for them. They are afraid that they are the ones who are going to pay the price.

A union representative extended the point:

> Mail services were (considered) a basic service that everyone should have access to. And nobody argued with that. I don't know a group of friends who sat down and decided that they could no longer afford it. The decision (to change postal service) wasn't made by consumers and it wasn't made by taxpayers. It wasn't made by the general public, but it was made by some outside agency for reasons of economy. You cannot function in a country the size of Canada without an adequate (mail) service. If you apply that to the telephone situation, the telephone is not a luxury. You can't do without a telephone. So therefore to put into someone's mind that this is no longer a basic service, that this is something you are going to have to pay for, it is wrong. And that seems to be the philosophy behind a lot of the proposals we have been discussing.

This consolidation of postal services has, it was suggested, particularly negative effects for the rural resident (or people living in new suburbs), and it results in the loss of jobs in a number of small communities. In effect, the post office is seen to be orienting its operations to the needs of major business enterprises, and developing the technological capacities necessary to meet their needs in a manner similar to that proposed by telephone companies.

No one we interviewed suggested that complaints with the quality of service of the telephone system matched those directed to the post office. Indeed, most community sector representatives wanted to maintain the current level of service, which they saw to be generally satisfactory.

The parallel between the post office (and the railroads) and the telephone service concerned the national policies being followed in each sector, and the way in which these services served a national economic purpose. The perceived transition from "value of service" to "cost based" pricing in pricing telephone and telecommunication services was seen to be part of a general approach of the government towards the provision of all essential services.

(d) Social Policy Objectives: It is important to note that even for telephone company officials, the social aspects of the telephone are worthy of attention. Indeed, one said, "our advertising campaign is targeted to exactly that kind of thing -- you don't have to have a reason to want to call. You use it just because you want to chat." An advertising campaign is not the same as a policy objective, however. For a number of people we interviewed, the objectives to be followed in telephone pricing policies are social ones.

What does it mean to say that telephone pricing and telecommunications are social policies? For different people, the answer is different:

> ..,. It is a matter of the government having to decide social policy and what it wants. Do you cut people off? Not only is the phone a gateway to consumer services. It is a gateway to advocacy and living services. (community sector representative)
>
> .... Having a telephone is an essential part of a job search, and employment policy. One of the things that people in the Forget inquiry talked about is that people with low incomes go into the job search with a real disadvantage because they cannot leave a number for an employer to get in touch with them. (union official)

> .... We have already seen that with women, the telephone service is no longer universal, because some women simply can't afford it. But we have also seen that it is also a lifeline. We are seeing a cut off from access, and a big cut off in funding so that there is less funding for the women who need the contact. We look at telephone service in terms of how it fits into the lives of Canadian women, and, for us, it's part of the social policy. It is intertwined with other things. (another community sector representative)
>
> .... I suspect we are in some transitional stage between the generation that doesn't use terminals, and the generation that is growing up with them. Somewhere down the road, more information is going to be made available over those terminals...It will be very important to have access to it, although I do not know whether it will ever get to the point where this access is a right. (government official)
>
> .... It's wrong just to measure hardship created by rising rates in terms of the people who drop off, which we see as substantial, because you have to look at the fact that these people consume less of something else in order to keep their telephone service. And that something else is likely to be essential. So we see no reason to create those hardships. (consumer group representative)
>
> .... What will happen (with restructuring) is that what used to be a public network will be oriented more and more to the needs of large business enterprises, and the result will be giving less service to the residential subscribers. (another union official)

For *all* of these people, the social policy objectives of telephone pricing policy arise from the relationship between telephone and other types of services.

Increased cost for local calling increases the cost of providing social and advocacy services to the public. It causes the poor to shift their pattern of expenditures, and to sacrifice some other need to maintain their telephone service. Telephone policy, it is suggested, interacts with employment policy, for a telephone is necessary for a job search. The proposed restructuring of rates, it is argued, involves the dismantling of a public network to meet the needs of one sector of the community.

The point to be made in this chapter is not whether the effects of the proposed

The point to be made in this chapter is not whether the effects of the proposed new telephone pricing policies will actually result in the problems identified above. This research was not designed to answer the question. The point is that telephone pricing policy is seen by some of the people we interviewed to be an intrinsic part of social policy.

The objectives for telephone pricing should, some suggest, take into account the role that telephones play in a variety of other aspects of community life. While such a mandate is difficult for the privately owned telephone companies to encompass, it is more appropriate for governments that generate public policy to consider the interrelationship between its policies in one sector and its social policies in others.

The individuals who raise questions about social policy in their discussion of telephone pricing are directing their comments to the regulators, and more particularly to governments which determine the framework for regulating telecommunications. The imposition of social objectives upon the telecommunication sector requires a commitment to viewing that sector as part of an overall strategy to be pursued by governments.

Not surprisingly, there are some governments that are more committed to such strategies than others. Even for governments committed to deregulatory policies, and limited intervention in any particular sector of the economy, however, the kinds of objectives voiced by many people in this research study pose a problem. These objectives account for much of the resistance to specific policy proposals. They also provide a stumbling block to federal-provincial co-operation, since provinces hold different views about the integration of telecommunication and social policy objectives.

Footnotes:

1. Jean Pierre Mongeau, *op. cit.*, p. 52.

Part One: The Consultative Study
Chapter Four: The Consequences of Changes in Telephone Pricing Policy

Overview:

The Mongeau report focusses primarily on the cost to subscribers and the effects upon business in assessing current and proposed changes in telephone pricing philosophies. It does so in part because its mandate was to deal with the universal availability of affordable telephone service.

Because this report takes telephone pricing policy as its point of entry into the assessment of proposed changes, some different aspects of the consequences of any change become apparent.

Specifically, the effect of a relatively small change in the price of local service, while important to some, was not the central focus of concern to most people interviewed. Much uncertainty was displayed in this research, as it was in the Mongeau report, about the effects of any change on specific businesses or specific sectors of industry.

While people had concerns about proposed "Lifeline" services, the consequences of any change in telephone pricing policy for social service agencies, for the quality of life (the issue of the information rich and poor, and the issue of the availability of new, potentially undesirable kinds of information) were more important.

That said, one should not dismiss questions about the impact of telephone pricing policies upon the consumers of services. The proposed changes, and their potential consequences, have raised serious questions. They are controversial, perhaps very much so. It is important to remember that broad social questions (one thinks of pipelines) with no immediate consequences for individual consumers have had the capacity to generate widespread public debate, indeed to bring down governments.

The view that telephone companies, and thus regulators, are shifting their priorities to serve "data" rather than "voice" customers is one such broad social question with a capacity to generate widespread controversy, for while individual service might not be affected to any great extent, already public debate has ensued.

The changes in telephone pricing policy now being considered, including rate restructuring, "cost based" pricing, alteration of rate groups and the introduction of LMS, are considered to be "all of a package" from the perspective of those gauging their consequences. In effect, all are considered to be manifestations of the implementation of "cost based" pricing. In effect, all create the basis for public controversy.

The inclusion of LMS in this picture of changing telephone pricing policies does not reflect ignorance of the current position of the CRTC or the telephone companies with respect to it. It reflects a deeply held belief that once the decision has been made to effect a transition between what is loosely called "value of service" pricing and "cost based" pricing, the final steps are inevitable.

Many people we interviewed believed that the introduction of LMS was inevitable, if the current transition in pricing philosophies were continued. In spite of reassurances to the contrary, the community, union and social service representatives, and some government officials we interviewed believed that LMS would be reintroduced once "cost based" pricing was undertaken.

It is important to comment upon the somewhat anomolous consensus among telephone company officials, community and union groups about the need to "go slow" in altering the environment to permit more competition. Certainly the potential competitors do not share this view, but almost everyone else we spoke with, slow" in altering the environment to permit more competition. Certainly the potential competitors do not share this view, but almost everyone else we spoke with, including business groups, were hesitant in their endorsement of pro-competitive measures in the telecommunication sector. This is true even of groups who take a pro-competitive stance as a matter of principle.

This anomolous consensus is somewhat like a "devil's bargain". For the telephone companies and the CRTC in particular, the issue is the structure of the market, and the consequences of altering some or all aspects of its operation. For others, the issue is the possible incursion that the competitive environment might make upon existing levels and modes of service, upon "value of service" pricing in its broadest and most generic sense.

These are two very different, indeed potentially conflicting views of the same situation. Thus, the positions being argued by the various groups are fundamentally at odds, even if the apparent conclusions of their arguments-- the need to "go slow about introducing competition -- are the same.

The problem with this "devil's bargain" lies in the reaction to the proposed pacing of the the entry of Canadian telecommunication industries into the competitive marketplace. A proposal that superficially meets the demands of both groups -- a proposal to limit and control the extent to which some sectors of the industry are made competitive or to delimit and protect some aspects of universality -- is likely to be faulted by all parties to the "bargain".

What is sought, as a better "bargain", is much less likely to be acceptable to one or other of these groups than the initial compromise, for the expressed needs of each group -- and its expectations of the telephone service to meet them -- are quite different.

When the CRTC or various governments adopt a "go slow" approach to the *introduction of competition within the telecommunications sector, our research suggests that they are reading the pulse of the clients of those policies correctly. A more close reading of this pulse suggests that the consensus that underlies current policies is, in fact, not a consensus.*

Instead it represents an amalgam of two different perspectives on telephone pricing policies, neither of which can accommodate an increasingly competitive environment for telecommunications easily.

Background data:

(a) Introduction: The general consensus is that telephone pricing policies are undergoing change. Perceptions of the consequences of the change are important in determining how specific proposals for change will be received.

This chapter identifies the consequences of the transition in telephone pricing policies. In doing so, it does not distinguish between the consequences of the various specific initiatives for several reasons. First, the current situation is seen to be a single process. In speaking about the consequences of changes in telephone pricing policies, interviewees usually did not distinguish between the various policy initiatives. Indeed, some argued that even such measures as LMS should be included in the discussion, although proposals for the widespread introduction of LMS appear to be dormant at the present time.

Second, many of the reported consequences are in the form of predictions. It could not be otherwise, for some of the changes have not occurred yet but are simply proposals. Others have occurred, or are in process, but it is too soon to know their consequences. Finally, these predictions are made by clients of the proposed policies, and whether or not they are accurate, their perceptions affect the climate for the reception of telephone pricing policies.

The views of different groups with respect to the consequences of changing telephone pricing philosophies are as follows:

(b) No major impact: It is important to note at the outset that many people believe that the changes taking place now in telephone pricing policies, and even those proposed for the future, will have no major impact. "Impact", in this case, is measured in terms of subscriber disconnection, but also in terms of the costs to residential subscribers and business, and the potential relocation effects of restructuring rates.

A regulator commented, for example, that there had been no significant changes yet in basic services, and none was predicted from the actions envisioned by the CRTC. A telephone company official indicated that little adjustment was predicted in business and residential rates. He said:

> I think it is correct to say that the rate relationship between business and residence could, in theory, be adjusted. But it is far more than rhetoric to say that the business telephone services are of much greater value, as you know you can earn your living from business. The call patterns are far higher, and the telephone rate you pay is tax deductible. It is just part of doing business, so there is no real need to reduce the residential level or to change it significantly
> .

A community service worker suggested:

> I can't really get excited about the impact of an increase in the telephone costs overall on our social structure. On a global fashion, it might have an effect on the agencies, but I can't see this office (Community and Social Services) having to deal with it. There are services for children, psychiatrists, where the cost is $175.00 a session, so it is pretty hard to equate $40.00 for a telephone to an intangible visit to a psychiatrist, when basically they have just been talking to a child. Now, if you were talking to the Income Maintenance staff, and speaking about an impact of $20.00 to $40.00 per month, he would make the case that the income maintenance would have to reflect that level of increase.

At least one interviewee echoed the views expressed in the Mongeau report:

> It varies according to industry, but the material that came out of the federal-provincial study (for the Mongeau report) suggests that for the majority of companies, telecommunications is not really a critical input in terms of costs. There are exceptions -- the service industries... I don't think you can do it by communities, and say this urban community would be worse off etc. or vice versa. It is really the individual person in that community. If he is a person who is making extensive use of a service when the price is lowered, he may even have a lower bill in total. But many people never make long distance calls, and these people are going to pay more for the same service...Very few people would give up their service. (government official)

In other words, there is some sentiment among those we interviewed that the current and proposed changes in telephone pricing policy would have a specifically limited impact. As we will see later, this perception is tempered by an evaluation of the overall effect of the changes and of the effects on specific groups or activities.

Several people who suggested that there would be little effect from changes in telephone pricing policy drew upon experience in the United States with rate restructuring. Although the American experience is different from the Canadian case, it is useful to cite the views of some regulatory officials from the FCC. While they might be expected to support the changes in telephone pricing policy that have occurred, they also draw upon studies conducted by the agency. Comments from several different American officials were as follows:

> The local rates have gone up, from the range of eight dollars a month a few years ago to twelve dollars a month now. In percentage terms, that's fifteen per cent...That is not a very dramatic change.
>
> Whether or not a person subscribes to a telephone service tends to be dependent upon their income. It does not seem to be dependent upon the basic telephone service. The reason for that is, I guess, that even if you are at the bottom of the poverty line, the local telephone rate is a trivial portion of your income. There have been states that have become concerned with the equity issue, and the FCC and state commissions have ordered studies. The largest was done by the State of Washington, where they investigated why customers disconnected. Most of the time, service was disconnected because people were moving. As I recall, about a third of the disconnects were involuntary. In most cases, the people had run up large long distance bills and didn't pay.

> It is a commonplace saying in the telephone industry that consumers seldom order the least expensive service available.
>
> Every time there has been an improvement to touch tone instead of rotary dial, or direct dialing instead of using operators, or the electronic switch instead of the old electromechanical switch, the argument has been that the upgrading is for business customers and big users, and the question is raised about how residential customers will be protected. I don't know that the argument has a lot of significance for us right now. We were never able to police investment decision of the operating companies when we were interested in doing so...I am not sure we ever accomplished very much. It is not clear to me that there are adverse effects for consumers...I think the pressure has died down and it's going to calm down even more. Telephone rates seem to lag behind other prices...I don't think we are going to see rate increases in the next few years either.

There is a common sense logic to the views presented here. The common sense logic is that even if telephone rates were to double, the price increase would be less than for many other consumer products and services. Telephone service is still a relatively small part of the costs of doing business and of the consumers' home expenses. Obviously, those on low and fixed incomes will be affected by even a small increase in the price for telephone service, but even for these people, the price increase is likely to be small in comparison with other price increases for essential services such as hydro.

That said, the degree of opposition to the current and proposed changes is out of proportion with the size of the price increases being contemplated. For this reason, at least, it is important to look beyond predictions that the effects will be minimal to identify what it is that is at the root of the opposition to the changes.

(c) Relationships within the telecommunication sector: Quite a number of people commented upon the effect that any change in pricing philosophy might have within the telecommunication sector. For some, the current changes provided an opportunity for competition -- much more widespread competition than has been envisioned to date. One new entrant in the market said:

> The principle of deregulation has dramatically benefited Canadians. It has dramatically benefited the telecommunication industry, and frankly it has proven that competition is not a bad thing. Cellular is going to become a viable product for the consumer. For the housewife, for the elderly or the disabled people, the answer is absolutely yes. The reason is that as the industry explodes and expands, the price of phones will drastically decline, just as happened with copy machines in the '60s and calculators in the '70s. In terms of airtime rates, as the market expands, there is every reason to believe that competition will bring airtime rates down as well....Simply because of competition.

His view that competition was feasible and likely to be strengthened by the current changes in telephone pricing policy was echoed by one community sector representative:

> I have heard that as people take a closer look at Bell Canada, the whole entity, the monopoly, and what is happening, CNCP may come out stronger, because there have been a lot of restrictions. They (CNCP) are now questioning the legality of these restrictions.

But others disagreed, arguing that the reduction in long distance was designed to make it difficult for other companies to enter the market. The argument was also made that rate restructuring and the transition to "cost based" pricing were, in effect, strategies of market control.

In light of this argument, questions were raised about the fate of the "independents". A member of the "independent" sector commented, first on the general effect of rate restructuring, and, secondly, on the possible transition to "cost based" pricing:

> Many of the independents will not have to raise their local rates. The long distance settlement between Bell and the independents is very generous, and the independents realize a lot of revenue from long distance. Some of the independents do not have to pay any income tax (run by municipalities). This is of course not true for all the independents.
>
> The normal thing you would expect is that they (the independents) would sell to Bell, but that is not happening. What is happening is that some are banding together, several smaller companies are getting together. There

> are "imperial designs" on the part of some of the independents to spread their empire. And Bell is not interested in buying these small systems. There are two reasons for this: They usually have to pay above book value for the system, and they will have to tear it down once they get it.
>
> If they moved to "cost based" pricing, it would give the independents a bigger stake in the costing equation. The problem with "cost based" pricing occurs when it comes to long distance calls. The independents really do not have all that much cost, but they benefit. The installation of digital systems allows for a more efficient running of their systems, and they are able to offer new and different services from time to time; it keeps people enchanted.
>
> "Cost based" pricing would be a disaster for the independents. If they had to go on a "cost based" system, it would be disastrous. Let me give you an example. Of thirty independents, there are five that retain about 80% of what they originate. What would happen to these five if pricing was on a "cost based" system? They could compensate for the time switching. Well, the switch is required for long distance. Even if you allocate costs, where do you allocate them? Do you allocate 10% for long distance? So "cost based" pricing is a nice regulatory concept, but none of the independents want it at all.

The prairie provinces, were not seen as having the same flexibility for "rebalancing" that exists within the Bell system. A telephone company official suggested, for example:

> I interpret rate rebalancing to mean that there will be no revenue change in total. In other words, the toll revenue will be reduced, and there will be a compensating increase in local tolls. We are participating in the Telecom Canada toll reduction at this time, but we are not trying to make up for the difference on local services. Bell is tying the Telecom reduction with a number of intraterritory rate adjustments, so that could well be described as a rebalancing effort within their territory.

The effects of any change would be different with respect to the various sytems, depending on their flexibility to respond to any changes within the province of their operations. As one government official noted: "I think a lot of what went on in the IX hearing was delay tactics; they (all telephone companies) don't want it; they don't want competition and they (in this case, the prairie telephone companies) don't want lower long distance".

(d) The Effects upon Business: Although the dynamic said to be causing the changes in telephone pricing policies is competition, and although the business community generally endorses pro-competitive policies as being "good for business", the most serious reservations about the transition to new approaches to the pricing of service were in reference to its effect on business.

Traditionally, the complaint has been that small businesses would be the hardest hit, and that only big business would be a "winner". This complaint was evident in the interviews. For example, a business group said:

> Big business and big buying groups almost always operate more advantageously than small competitiors. If you look at the PBX savings they get compared to what a small business with three lines gets, it is incredible. Bell and the provincial systems tend to favour the large user, and when they talk about losing to competition, it is almost exclusively the large multinational that they are concerned about. Frank's pizza is not going to put in its own satellite dish.

One government official noted: "you'll see! The average monthly business rate in Saskatchewan has gone from $21.24 to $44.28 a month. Isn't that incredible". He drew attention to the dependence of his province upon small business. Another government official suggested:

> The reaction (to "cost based" pricing) is when people start talking about LMS. I have heard from a number of businesses that if a customer has to pay $0.20 everytime he wants to call, he is not going to call. Some of them are very concerned about that.

This concern extends to some larger businesses as well. The example given was Eaton's and Sears:

> These business have to maintain a lot of local phones. They may not make a lot of outgoing calls, but they have the lines and phones available for people to answer them. If the cost of local service starts to double, these businesses may not save enough on their long distance to make up for it. And even banks. There is a lot of long distance calling between their branches, but

> when you walk into a bank, everybody has got a phone on their desk, I am convinced that businesses are of two minds about this. (another government official)

A union representative argued that the significant differences would come from changes to short haul tolls, these changes affecting small business to the greatest extent. He stated:

> In the United States in the 1970s the changes affected the short haul routes. They switched the burden onto the short haul low density routes. Toronto to Kitchener would be short haul or low density.

A telephone company official's comment indicated that short haul calling would be the first to be affected in the new telephone pricing environment:

> If you look at the average toll bill of the average customer, the large business customer or the residential customer, there is probably a preponderance of intraprovincial calling...something like 75 or 80% of the calls are within 80 miles. So the first thrust is to get the intraprovincial rates down, and the second thrust is to get the interprovincial rates down.

In summary, the transition in telephone pricing policies is seen, at best, to be a mixed blessing for business. While it might further competition, some argue, it is likely to have its major effect upon small business users, many of whom would not benefit. Moreover, the effect is likely to be quite different within any sector and in different parts of the country.

Aggregate measures of the effect of a change in telephone pricing policy would not be particularly useful under such circumstances, for the degree to which any individual user -- business, residential, prairie province resident etc. -- would be affected might be significant, but the group as a whole might not experience a measurable effect.

In many interviews, reference was made to the benefits to be experienced by larger business enterprises and major users of the telephone. Yet examples were given -- Eaton's, Sears, etc. -- of major users that might be affected negatively by a change. *In our interviews with representatives of business groups, including big business, we found no specific indication that a recognizable business sector would be the clear beneficiary of any change.*

What we did find is an interesting argument about the effect of a change in telephone pricing policy. It was suggested to us that the telephone companies were shifting the orientation of their activities to accommodate a different group's needs.

Formerly, residential and "everyday" business service were the heart of the telephone companies' priorities. In the new pricing environment, concern for the "voice" side of telecommunication took second place to a new preoccupation with data-based services, and consequently with the needs of the users of data-based services.

We began this chapter by suggesting that something other than the specific cost to consumers -- even business consumers -- underlay the concern about changes in telephone pricing philosophies. It is only commonsense to question whether a price increase of a few dollars for an essential service would provoke a serious public reaction. In this section, we have identified one of the factors that might account for the reaction.

It may be that the proposed transition to "cost based" pricing -- however fully it is carried out in practice -- is seen as a transition in the priorities of those who provide telephone services, in effect replacing the conventional customer of voice services with a new customer of data services as the centre of concern. In the opinions of those we interviewed, from business and community groups alike, this kind of transition would be a significant one.

(e) The Effect on Jobs: One of the points made to us most strongly -- but not by many people -- was the impact of changing telephone pricing philosophies on jobs

(e) The Effect on Jobs: One of the points made to us most strongly -- but not by many people -- was the impact of changing telephone pricing philosophies on jobs within the telecommunication sector. It is important to note several aspects of this argument.

First, the adoption of specific proposals involving some measure of "cost based" pricing was not in itself seen as having a job effect, although some concern was raised about whether this would be measured properly. Second, the potential of the growth of telecommunications data services for creating some compensatory employment opportunities was recognized. Finally, the concern for jobs was not simply a reaction to the new level of "mechanization" (certainly the wrong term) in the industry, a "Luddite" response.

The question about jobs reflected instead a recognition that the employment structure within the industry as a whole was changing. Changes in telephone pricing policies were seen to hasten the effect of changing employment patterns. A union representative noted:

> I think it was in 1974 that we formed the Canadian Federation of Communication Workers, because we realized that whatever we obtained through the bargaining process, the regulatory setting had a tremendous effect upon the workers for several reasons.

There were a number of consequences from the changing telephone pricing policies. It was noted, for example, that a portion of the terminals, now available from competitive sources, would likely be manufactured outside Canada, with a resulting loss of jobs. As a result, competition often had a negative effect on employment. As a union representative noted:

> While technicians used to go to people's homes and repair telephones for free, Bell Canada was put in a position where they had to compete for this terminal attachment market. People buying their own equipment would have to have it repaired. Even worse, people would call in a (Bell) technician to see where the problem was. Even worse, people would call in a technician, and if the problem was in their set and not in the terminal, Bell

> would charge them $65.00 and not repair it. A person buys a good telephone set for $50.00 to find out a few months later that he is paying $56.00 for a diagnostic call by a technician, and his phone is still not repaired. There are lots of problems with terminal attachment.
>
> The same thing goes for "cost based" pricing. Of course local toll rates will go up: all the service rates go up. We have seen Bell Canada put a lot of pressure, for example, on the operator charges. It used to be that you could phone a telephone operator and get some free assistance. Bell is driving this service to its cost, so that it now costs $0.60 per call. So it is very clear where the telephone is going. It is cutting services. They want to cut services because this permits them to reduce the total number of employees.

It was argued that the changing approaches to pricing services made accelerated "mechanization" inevitable, forcing decisions to be made without reference to their impact upon workers or the labour market. For example, a community sector representative suggested:

> I am worried about people who are, like the telephone operators, at the other end of the system. They are also getting hurt by this. They are getting more regulations imposed upon them and more pressure, and are cracking under the strain.

Indeed, some claimed that the equation between employment effects and "cost based" pricing initiatives was balanced in the opposite direction, with the desire to alter the employment structure being the major impetus for the adoption of "cost based" pricing. In effect, it was suggested, "cost based" pricing offered the telephone companies the opportunity and "the excuse" to reduce their labour costs. A union representative put the point this way:

> That is the kind of thing that Bell and the other telephone companies have been doing. They increase the (cost of) services to reduce demand. On one hand they are cutting their costs, operating costs, by reducing the number of employees. These employees are now monitored. Every call coming in, and the amount of seconds per call is calculated. They have certain standards that the operators have to come up to, otherwise their jobs are on the line. Since about 1980, Bell has cut 30% of the operators, while the number of calls went up 20-30%. So you get more and more calls coming in, with less and less people involved in offering the service. This will reduce the demand, and some of the services can then be cut.

It was also suggested that the service levels to "voice" customers had suffered, as a result of the transition of priorities that seemed to be taking place within the telelphone companies. As data became more important than voice, the services to the "voice" customers were either cut back or placed on a user pay basis. The example of directory assistance fees was cited, as were several others.

Finally, quite a number of people raised questions about the effect of any free trade agreement on the telecommunication sector. The argument was that a free trade agreement would both hasten the transition to "cost based" pricing and, at the same time, result in an outflow of jobs to the United States. Again, the terminal attachment decision was cited as evidence. This concern was raised by business, government and community groups as well as union representatives.

(f) The delivery of Social Services: The most serious effect of changing telephone pricing policies for many groups we interviewed was seen to be in the delivery of social and community services. It is important to relate this concern to that more often expressed in the press with respect to changing telephone pricing policies, the concern for the effect of increased residential and local rates upon specific groups in the population.

Although several groups discussed with us the impact of even a small increase in local rates upon the welfare and working poor, the change was seen to affect the delivery of services more than the individual subscriber. For virtually all of the social, community and advocate groups we interviewed, any change in the price of local calling -- and especially LMS -- was seen to result in a cutback of their services. For the welfare and working poor, the cutback in social services would compound any hardship caused by the increased price for local telephone service. A community worker noted:

> I think it (the present level of local calling facilities) is very important to us

> because we even do family benefits over the phone and lots of clients call in. We have mothers who are trying to cope with a retarded child, and they call a lot. We have old age, we have a families unit...they call in for information about how to apply for old age security.

In some sense, the loss of the support services was more serious than the potential financial burden for individuals. The social services were seen to compensate or offset the most deleterious effects of poverty, and to provide some means -- however limited -- of exit from the poverty cycle. A native employment service worker told us:

> We are on the phone constantly, with people, with employers, with other employment offices throughout the province, and we use it for inventory and stock replacement. We handle such things as race and sex discrimination cases, on a referral basis, and that involves a lot of phone calls. The telephone plays a vital role. Transients usually keep in touch by phone. It is their only way to do so. We estimate that 80 to 85% are contacted or make contact by phone.

Advocacy work for the rights of disadvantaged groups was also seen to be dependent upon the telephone:

> Some organizations would cease to exist, because the phone is the main tool for reaching people. Without a phone, the turn out at meetings would not be what it is now. This would affect the family, with children's activities, school functions, that would be curtailed because we are dependent upon the phone to get people to participate. Telephone access and universal service actually decrease the social cost (of providing social services and of poverty), by its provision of social and support services. Support services, such as suicide prevention and stress lines, would all be drastically affected. Advocacy groups run on nickel and dime budgets. (excerpts from a workshop with community and social service groups)

Human contact, crisis lines, job search support, child and wife abuse services are seen as essential to the support of both working and welfare poor, as important as any transfer payments. Another community worker summed up the view that was expressed by many:

> Any change would have a substantial effect, especially on the voluntary sector and also for people calling for information. For example, mothers with a lot of kids, who can't get out of the house. They will call us three or

> four times a week. I also think that old people like just to phone and talk. I think if one were to measure the amount of calls they make, they would say 'why bother?' but this would make a difference in their life and outlook. They could become very depressed and isolated. With the (program) *Youth at Risk*, if the calls were measured, it would defeat the purpose. People use the phone as a social thing, especially for people who don't speak the language.

The effect on social and community services was seen to extend beyond the working and welfare poor, however. A community worker who dealt mainly with women's groups said:

> For the women involved, for the low income women, the phone is their lifeline. But it is also so for middle income women, who find themselves at home or not in a city. The women's centres...a lot of their work is done by phone...women need adult contact and without the telephone, I don't think a lot of the centres would be able to provide it. The women's centres run on almost no money at all. I lived in England, where you paid for each call...it made the work incredibly difficult. I worked at a women's centre and incredible money went into just phoning. They didn't have enough money to continue the call after a few minutes.

The delivery of library services and other community amenities is also dependent in part upon relatively inexpensive access to telephone service. A librarian told us, for example:

> People do phone into libraries; libraries also provide a telephone reference service. There is a lot of traffic, people phoning the library for information.

The introduction of LMS -- which is seen as intrinsically part of a transition to "cost based" pricing, regardless of the protestations of both regulators and telephone company officials -- changes the financial equation for community services, rendering them less publicly available. It supports the introduction of user pay approaches within the community sector, to offset the user pay ("cost based") approaches used to price the resources, such as the telephone, that community services draw upon.

There are some who argue that the transition to a user pay system is appropriate even for the delivery of community services, especially when such services are to be delivered to people other than the working and welfare poor. They argue that it is appropriate to use criteria of need and ability-to-pay in pricing these services and designing access policies for them.

For these people, any transition to "cost based" pricing of the resources upon which community services depend is a benefical thing, for it exerts pressure upon those who fund community services to re-evaluate the way in which the community services will be delivered.

No one suggested, however, that change in the way that the resources, such as telephone service, were provided would result in a different, and more appropriate allocation of public money to support such services. No one believed, for example, that libraries would receive more funds if the price of local calling were to be increased or if LMS were to be introduced. No one believed that the budget for a crisis centre would be altered to reflect the newly introduced additional cost of telephone service. No one even believed that changes in the welfare assistance programs would occur simply as a result of increases in the cost of local calling, were such increase to occur.

We have already stated that the Mongeau report cites the view of economists that the "governmental tax and expenditure system is more appropriate" to support the delivery of social services.[1] It is important to return to this point in the context of the present discussion. The consensus of those we interviewed is that such expenditures were not likely to be forthcoming -- for reasons having little to do with the political valuation of the specific services being provided.

In the view of the community and social service representatives interviewed, the result of a change in telephone pricing policies was not likely to be offset by any the result of a change in telephone pricing policies was not likely to be offset by any changes in tax or expenditures policies, however desirable this might be on theoretical grounds. For them, any change contained the threat -- real or potential -- that the level of social services would be reduced, a situation that is already occurring. As a librarian told us:

> I think we have already noticed the effect in Ontario from the Saskatchewan budget cuts. It happened when the new government got elected, and the libraries were hit drastically. There is a reciprocal forwarding between provinces, and you would be surprised about the number of requests that make their way to Ontario because we still have rich collections. There is a lot of people making demands upon our collections from out of the province, and this is a direct result of budget cuts.

This was seen to be the most serious consequence of a change in telephone pricing policies.

To be sure, many of the above comments were related to the possible introduction of LMS, a change that both regulators and telephone company officials have said is not being envisioned at this time. No one suggested that the kind of changes being envisioned in local service rates would, in themselves, be a major problem for volunteer or social service groups.

In the view of the people just cited, reassurances about the limitations of the changes being proposed have little effect. LMS is seen to be the logical and inevitable extension of a commitment to "cost based" pricing. It represents the full implementation of the "cost based" approach.

Examples of the introduction of LMS (in New Brunswick) were pointed out; the argument was made that the technologies necessary to implement LMS were being put into place. LMS was seen to be desirable from a company, and "cost based" point of view, regardless of whether it was immediately beneficial to the companies (in a "bottom line" sense) to introduce it.

The distinction between the current and proposed telephone pricing changes and LMS was simply not accepted. As such, the concerns about the current pricing proposals, and particularly their effect upon the delivery of social and community services, reflected an assessment that the current proposals constituted a first step towards an altogether undesirable transition in the provision of telephone services.

(g) The Consequences for the Welfare and Working Poor: Very few people believed that any increase in local calling charges would result automatically in an increase in disconnections, although a consumer group argued that even a small percentage of disconnections on a Canada-wide average still respresented a significant number of people. Most groups seemed to feel that the telephone was regarded as an essential service, to be discontinued only if absolutely necessary or if high long distance bills had been incurred.

Two points were made with reference to the impact of any change in telelphone pricing policies with respect to the welfare and working poor, in addition to changes in the provision of social and community services. First, it was pointed out that the change for installation, and security deposits for those on welfare assistance constituted a significant barrier to acquiring telephone service if it was not already in place or if it had been discontinued for any reason.

Second, it was noted that in most provinces the welfare rates would not be changed as a result of increases in the cost of basic services. Thus any increase in the cost of local service would have to be absorbed from an already insufficient welfare payment covering a number of other essential services.

(g) Other Consequences: Although the question of whether society is now creating an "information poor" has much broader ramifications than the situation of the welfare and working poor, this issue was raised in relation to them. The term "cut-off society" was used by one community sector representative to refer to people who were at the poverty line and also among the "information poor".

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The lack of privacy for individuals forced to use two or four party service was stressed. It was noted that if LMS were introduced, that universities and governments would not phone out to provide information to individuals. Information would only be available, "as it is now with Information Canada", on a user pay basis. One union representative stated: "We are grappling with problems of accessibility".

The issue of the "information poor" has been discussed in the United States more extensively than in Canada. An American official commented:

> The information poor and the information rich: certainly those two phrases have been used quite a bit in the debate on whether the BOC's should be allowed to get into other lines of business, because there is a danger that we are going to create two classes of society, people that can afford these services and people that cannot afford these services. I am kind of cynical, because I think we already have an information rich and an information poor society. I don't see any reason to exacerbate it, but I don't think it is anything new.

She continued:

> If you are talking about access to a diversity of information sources, I think this country is filled with more information rich than information poor. We are so bombarded with diversity of information. That characteristic of this country has led to the concern about whether we should allow the Bell Operating Companies to provide electronic publishing. What are they going to do if they have the ability to transmit information over their own lines, and they can control its content. That is the diversity principle that is being debated.

In other words, the policy issue concerning the information rich and poor is somewhat circumscribed in the American context by the historically strict regulatory separation between content and carriage. In Canada, this principle has been applied much less strictly, and indeed in the case of cable, only in a limited sense.

Although the general question of whether two classes are being created is common to both countries, the particular problems facing legislators and regulators in the United States are of less concern in Canada.

What is being raised in Canada -- and might also be raised in the United States, for we lack information about it -- are problems with the so called diversity of information. Specifically, a great number of people seem to be concerned with some of the new services being offered by telephone, from telemarketing to teenage "party lines" to pornography. In Canada, the assumption that the principle of greater diversity of information is countered by a principled concern about the effect of some of that information. The point was made most strongly with us by a women's group representative:

> You've got pornography. You've got a "phone in Santa Claus". I caught an advertisement on the television during the Christmas viewing time with the telephone number in large print and the charge for the service in small print. I think there has got to be something that stops them from advertising to children. It is so easy for a child to write a number down and phone it. They don't have to ask anyone. We are working so hard to do something about pornography and children, and the children can phone when nobody is around.

Other researchers have commented that Canadians seem much more willing to accept some degree of government regulation with respect to the information that will be made available than do their American counterparts. We have no evidence to support the case on either side of the argument, but found that the diversity of new information services was not regarded as an altogether positive phenomenon.

Finally, two other social issues were raised with us with respect to changes in telephone pricing policies. The first is related directly to welfare rates. The argument was made in one of the workshops that an increase in the telephone rates will force governments to contribute more in social and welfare contributions, thus resulting in an increase in the burden of taxation for the general population.

And secondly, the possibility that services might be curtailed, as airline services have been, in a more deregulatory environment was raised. One person cited the problems that have arisen in the United States with the routing of long distance calls as a result of telephone pricing policies under its deregulatory regime. How much this applies to any current or proposed Canadian policies remains to be seen, until the extent of the changes to be adopted in Canada in the telecommunication sector are known.

Footnotes:

1. Jean Pierre Mongeau, *op. cit., p.* 57.

Part One: The Consultative Study
Chapter Five: The Causes of Change

Overview:

A variety of causes -- competition, technology, the influence of the American example, the threat (or potential) of a free trade agreement -- is seen to be the origin of the change in the philosophy of telephone pricing from "value of service" to "cost based" pricing.

This list of "causes" is different from that offered in the academic literature and in government publications. In these publications, competition -- the new competitive environment -- is seen to be the paramount -- perhaps only -- pressure for change. In our interviews, however, other factors unrelated to the new competitive environment were seen to be at least as important as competition.

Several people spoke about the tendency of Canadian policy makers to "do what the Americans do, but ten years later". A number of others offered analyses about the influence of the approaching free trade agreement, suggesting that the various telecommunication and other industries were using the telephone pricing debate as one of many opportunities to position themselves favourably -- or defensively -- in relation to changes that would occur if free trade were adopted.

It is from the perspective of the major telephone companies that the relationship between competition (which they see as responsible for the change) and "cost based" pricing is a necessary and inevitable one. As one official noted:

> The people that support "cost based" pricing see it as logical. I think it comes back to the competitive arena. If you want to be competitive, then you have to bite the bullet on "cost based" pricing.

He estimated that the the CRTC is beginning to see the relationship between competition and "cost based" pricing in the same terms.

> I think the CRTC has recognized that there will have to be a move towards "cost based" pricing, but I don't know if they move, how far. They are not pushing but they indicate a willingness to get into that area of investigation. The Mongeau report recently established that the ghost -- the possible effects of moving towards "cost based" pricing -- the results are not catastrophic.

He went on to make the general point:

> The competitors, of course, are trying not to have anyone talk about a move towards "cost based" pricing, because it is to their advantage not to bring up the cost issue, because that is the margin which is going to attract them into the business. It's a bit illogical because, as you can see what has happened in the United States, without first addressing the price-cost relationships, there was a sudden scramble to readjust prices. The pressures to bring toll down quickly and the contrary pressures to bring up local to maintain the viability of the universal phone system caused a fair amount of public confusion and public outcry...you know -- who are the winners and who are the losers in the short term.

But for others, the relationship between competition, "cost based" pricing and assessments of the current situation was seen to be a matter of philosophical orientation. It did not reflect an assessment of the practical situation in telecommunications.

For example, a government official concluded that philosophical and ideological arguments are currently being seen as persuasive to policy makers, but he argued that more pragmatic considerations would intervene as the implications of the change became apparent. He said:

> I think it is going to come down (in the final analysis) to a matter of economics, as opposed to people's philosophical preferences. If someone said, 'Sure, it's nice to get our prices in line with costs. It's tough to disagree with an economic theory, but if it means that I am going to double my phone bill, I think I can hold off another few years before you do it'.

There was even some agreement with his statement from within the telephone industry. One official commented:

> So many people are so definite about the business of telephone pricing. I

> have been in the business for forty years, and I am not as sure as I was when I started about what is right and what is wrong. But I know this, when you argue with an economist...they've got these black and white situations...You can get a scientist in here and he'll separate costs until he's blue in the face and you'll get an answer. Now what are you going to do with it? So it costs $85.00 per month for a phone on a farm, tell me what to do next?

The implications of these last statements are important ones. It is commonplace to hear that the new competitive environment is a given, and that it inevitably requires a different approach to telephone pricing policies. The projections about the effects of cost separations and rate rebalancing, for example, are treated as if they were empirical observations of the effects of policies already in place.

Many of the interviewees raised questions about the projections, and about the inevitability of introducing "cost based" pricing to take account of the "new competitive environment". They suggested that the projections reflected less of science, and more of ideological commitments than is first apparent.

They noted that many of the early projections about the direction of growth in the telecommunications industries have proved unsound, and that a great deal of "salesmanship" is involved in proposing a transition in telephone pricing policies.

Background data:

(a) Introduction: The Mongeau report took it for granted that changes in telephone pricing policies were underway and described the changes as the new competitive environment for telecommunications. There is obvious truth to its perception that legal and regulatory actions, in Canada and in the United States, have altered the structure of the market for different telecommunication services. It is unclear as to the source of change, whether it is the result of new technological opportunities, a reaction to several court decisions, a result of a changing regulatory environment or the result of the market strategies being initiated by the members of

the industry themselves.

Policy initiatives are understood differently, depending upon how they are seen to originate. For example, to say that the new competitive environment has caused the change is to suggest that the clients of public policies are responding to forces that are largely beyond their control. This is how the current actions of the regulators, consumers and telephone companies were often explained to us. We were told that each group was engaged in re-orienting its activities simply to *adapt* to the new environment. The Mongeau report can also be read in this light.

There are problems in tracing the origins of changing telephone pricing policies to something as amorphous as the changing environment for telecommunications. The most important of these is that it limits the scope of the choices for public policy. From such a perspective, adjustment and adaptability become the key words in the discussion of public policy. The decision concerns only *how to adjust* to the new environment, rather than the type of service and regulation that should be provided.

In fact, it is unlikely that the clients of telephone pricing policies feel so limited in the scope of their response, or even that governments and regulators see the situation in such limiting terms. There is much evidence that they considermany issues other than how to adjust to the new competitive environment.

In this chapter, the various opinions on the origin of the changing telephone pricing policies are explored. These opinions range from "postal strikes", to competition, to philosophy, to a crisis in regulation. Each one of these explanations for the impetus to the changing telephone pricing policies will be examined to determine how it affects the reception of specific policy initatives, and the degree of latitude it appears to give to the decision makers and clients of telephone pricing policies.

(b) The Competitors and the Technology : To deal with the post office first.

Mention was made of the effect of the postal strikes upon the telecommunication industry. Specifically, such strikes were said to result in not only greater demand for telephone service, but also greater scrutiny of the telecommunication carriers activities.

A much more common view of the origin of the change is that it comes from pressures by new or potential competitors, who seek to carve out areas for their own growth from the territories and services traditionally offered by the telephone companies. In some senses, this is the most benign view of the current change, for such new competition is seen to promote lower prices and stimulate investment. For example, a business group noted:

> I suppose the national interest involves two things, the standard of living and access to telephones, etc.. Using the telephone as a way of being in touch with so many sources of information is built into the standard of living, but also competitiveness. Having a system that is good enough to compete with the American, European and Asian telecommunication in a world of information exchange.

A regulator noted that the pressures for change had come from the Canadian Business Telecommunications Alliance, seeking to make Bell more responsive to the need of its members and to lower long distance rates. Yet this same regulator expressed doubts as to whether all of CBTA's members wanted a more competitive environment and whether the members favour such major changes as LMS.

The view that the changes stem from competition also draws upon a perception that the monopoly-based telephone industry has been "comfortable" too long, and that a wider range of services can be offered by leaner and more aggressive new companies. As a government official noted:

> I think it is a combination of factors. I think there is the ever increasing possibility of competition, and there is a natural desire (on the part of the telephone companies) to get as much out of the business in an area where it is still a monopoly, and where they can control the demand to some extent.

This same competitive pressure is sometimes described in another way, as associated with "by-pass", and as a competitive push from industries that wish to "skim" profits from providing new telephone and telecommunication services. In this view, competition is seen as inevitable, a development that is attractive in theory but potentially disruptive in practice. The emphasis is placed on adaptation and adjustment.

A telephone company official told us, "By-pass is just another word for competition". Even though in Canada relatively little evidence yet exists that by-pass poses a significant threat to the current market structures in the provision of telephone services, the threat of by-pass is considered to be a real one. One telephone company official stated:

> As long as you are rate averaging, which is what we do..(there is the potential for by-pass). Everyone in Ottawa pays the same price for telephone service. There is probably some business in Ottawa that has so much telephone service that it could put up an earth station, and drop it down somewhere else, say in Calgary. So as you raise your average price, there will be more and more people who will be able to supply their own service at less than the average price. Anytime you are in a price averaging situation, if you allow people to depart from it, you are at risk from by-pass...We know we have people in a roundabout way trying to by-pass the long distance rates. We do not think it is such a big number that it is urgent, but if we are not careful, the possibilities are there.

The contention is made that competitive opportunities, either for by-pass or for providing specific services, will be seized, in a market where more than one potential competitor has established credibility.

The location of the origin of the change of telephone pricing policies in the new competitive environment has several consequences. First, since competitive pressures are generally viewed -- from many different perspectives -- as inherently desirable in an economic sense, the objective of telephone pricing policies is not so much to reduce competition, but to ensure its orderly introduction. For example, a telephone company official said:

> It is not Bell's position that we would like to totally rebalance rates. We are

> not saying we want to. We are just showing what would happen if we did. The operative word here is illustrative. Now I think what we would suggest as more prudent...is that we do this a little bit at a time, and we monitor the real world. We find out how we are affecting universality, and whether it's true that you can double the rates and not have any significant effect on the subscribers. Bell would think that is a responsible way to look at it, despite the fact that the Mongeau report says you could double local rates and not have any effect on universality. We might well say, 'why don't we do this over a few years, slowly, to prove it to ourselves'.

Second, there is some sense among those we interviewed that increasing competition in the telecommunications sector is inevitable. Again a telephone company official commented:

> What ever goes through the United States today is taking advantage of the situation in the United States. They have moved further towards lower toll rates and higher local rates at this point than we have. Plus, there is the exchange on the dollar, which at the present time is working in our favour as a counter-balance. So you don't get the fantastic flood south of the border at this time, because there are two forces fighting against each other. If we had the dollar at par, you would find that the amount of traffic flowing via the United States would be substantially larger than it is today.

The view that by-pass is inevitable is one that seeks to limit the governmental and regulatory response, because the alternatives to a gradual introduction of competition in the Canadian case are not considered viable.

Third, the result of locating the origin of the changes in telephone pricing policies in the new competitive environment is that the response, especially from the existing telephone carriers, is likely to be couched in defensive terms. Their argument is: if we are going to have to deal with a new competitive environment, steps should be taken to ensure the competition is fair so that the end result is a desirable one. The debate about "rate rebalancing" is presented in these terms, even by the prairie telephone companies who do not, generally speaking, support rate rebalancing.

Finally, it should be noted that not everyone argued that competition was inevitable, or desirable. A union representative commented:

> It was never really a question of establishing competition in the United States, because they are realizing that you can't have competition, true competition. You can't have three networks going all over the country. So what it boils down to is cutting back on some services, bringing down the price of services that are offered to companies, eliminating cross-subsidization, and placing everybody on a "cost based" principle. When you say that consumers have favoured competition, you should look at the CNCP decision. You'll see that there were no consumer groups favouring CNCP's entry. If you go to competition, you get 'lean mean' services, telephone companies saying that they have to be in competition and they have to keep their big users on the lines, and the local subscribers are going to pay for that.

And a consumer group noted that it took no comfort in the numbers being provided in the Mongeau report with respect to the effect of competition, stating, "We think that 145,000 subscribers (who might disconnect) is significant."

(c) Technology as the Impetus for Change: The view that competition is driving the change is not one that is held by everyone we interviewed. Even those who attributed the change to competition had mixed views about the source of the change. For example, a government official said:

> Bell was saying that we need to restructure because of three reasons: by-pass, by-pass and by-pass. Currently there is no evidence of that. There is very little by-pass going on, and few people are planning to do it. Partly because of the current exchange rate, but also because of a lot of other reasons. So for most people, I don't think it really enters their planning at all.

Underlying the mixed views about the impact of competition is a perception about the changing nature of the technology. The suggestion is made that the cost of providing specific services has changed considerably. This gives telephone companies greater flexibility with respect to pricing policies, obviously a beneficial thing. At the same time, the decrease of the costs of providing specific services invites competition. This was the argument made by the government official cited above. He said:

> It has become much cheaper to do long distance. It is almost to the point

> where it is distance insensitive, depending on the technology you are using. So the costs have come down drastically in the long distance area. So there is some justification for these changes.

If this official is correct in his argument, then arguments for rate rebalancing should also be seen in the same light.

Following his argument, the question of whether long distance has traditionally subsidized local service is beside the point. Once the costs of providing long distance have been reduced, considerable scope exists for reducing their price irrespective of the price-cost relationship for local service. This would be only true for the carriers who play the primary role in Telecom Canada, and thus in the provision of long distance services.

We have no way within the context of this research to document the degree to which the changing cost structure for long distance services is itself -- independent of the costs of local service -- the dynamic of the changing telephone pricing policies. Nor can we comment on the factors being taken into account in the evaluation of local rates or in the allocation of shared costs between local and long distance. What is important from the perspective of our study, and documented within it, is that both telephone companies and consumer/community groups see the local and long distance cost-price relationships as *intrinsically* linked from a policy, if not a cost perspective.

The consumer groups believe that the reduction of the price for long distance calling is only a first step of a proposal that links the price of both services. They believe that "the second shoe is about to fall" and that even LMS is the inevitable result of the current decisions of the CRTC. The major telephone companies in Telecom Canada argue that any reduction in long distance as a result of competition places an *inevitable* burden on the telephone companies to deal with the price of local services. For example, a telephone company official described the current situation in the following terms:

> When one (a competitor) comes forward and says that they want to compete in a particular segment of the business, we respond by saying, 'fine, let's rebalance the rates and then we'll compete.' You could say that the pressure comes from Bell to rebalance the rates, but I don't think that is exactly true. It comes from the people that want to compete...They want to see the profitable part of the business but not the unprofitable part. You know it is not fair to let people skim off the profitable parts of the business, leaving the telephone company with their obligation to serve everywhere and take care of the rest.

It is important to reiterate here that this report deals only with the public debate about telephone pricing policy, and that it is intended to complement the more objective analysis of the Mongeau report, and the studies done by the CRTC and by the Department of Communications. We are not in a position to assess whether the competitive environment is fair for the major telephone companies, the other partners in Telecom Canada, the independents, or the competitors in the long distance market, and we shall not do so, other than to note, below, the different perceptions of the situation from each of these groups.

What we can say is that the beliefs and arguments affect the reception of specific policy initiatives. *The points to be made are two simple ones. First, understanding the origin of the impetus for change, whether it be primarily competition or technology, is important, for it defines the scope for policy initiatives. If cost reductions are seen to stem almost exclusively from competition, and competition is viewed as inevitable, then the appropriate course of action is different than if significant cost reductions stem from the introduction of new technologies for long distance.*

This first point, we assume, is obvious to both governments and regulators. One regulator suggested to us that the current reductions in long distance rates were not necessarily a first step in rate rebalancing. In spite of scheduled hearings on the proposal for rate rebalancing, his comments may reflect the perception of the CRTC or various governments that the changes in the cost-price equation for long distance are at least partly independent of the relationship between local and long distance service.

service.

For example, the IX hearing was described as convincing at least some members of the CRTC that it was not appropriate to introduce competition, but that, at the same time, there were some areas where competition might occur. At least some CRTC Commissioners were convinced that CNCP required ten years to provide universally available service, which indicated to them that the plan was not viable. The CRTC was concerned about what would happen if CNCP could not complete its network operations or only achieve 50 or 80% penetration. "What would happen to the principle of universality, and what impact would this have on prices for non CNCP served customers?"

Second, the general perception of those we interviewed was that local and long distance were inextricably related, and that any policy initiative with respect to long distance charges was necessarily to be followed by alterations in the provision of universally affordable telephone service. It is this perception that can be countered, if indeed there are ways of dealing with local and long distance prices somewhat independently.

This second point has a bearing on the response to policy initiatives that are being made. It sets the tone of the debate, which is occasionally quite strident. It causes groups to feel that some basic rights are being threatened, and that their financial resources are being undermined. It causes them to believe that competition in the telecommunications sector necessarily results in the dismantling of the public contribution made by the universal availability of affordable telephone service.

The argument that the changing costs of providing services is grounded in the new technologies, and not in competition nor exclusively in the interrelationship between local and long distance is an important one. To the extent that it is correct, and that governments and regulators see local and long distance costs as somewhat independent of each other at least in the case of the major carriers, then the scope to respond to the concerns of the clients of telephone pricing policies reflected in this *and that governments and regulators see local and long distance costs as somewhat independent of each other at least in the case of the major carriers, then the scope to respond to the concerns of the clients of telephone pricing policies reflected in this report is considerably greater than is often suggested. If an objective analysis of the industry were to demonstrate that changes in long distance rates need not necessarily affect local calling rates, at least in terms of requiring "rebalancing", the threat to universality would be diminished.*

Questions about how to make telephone service universally available at affordable prices can be addressed in their own terms, as questions about the nature and extent of the government's and the telephone companies' responsibilities for providing it. That the price for long distance calling might reflect its costs more adequately would not necessarily require a dismantling of the "value of service" approach in local calling, taking "value of service" to mean *only* the conventional methods of pricing local telephone service to achieve universality.

(d) The perspective on technology and competition from other groups:

We have discussed both technology and competition as the dynamic for change from the perspective of the major telephone companies, regulatory officials and members of the public. There are other views. The situation appears to be different from the perspective of groups other than the major telephone companies and even the community or consumer groups. First, it is useful to consider the position of the independent telephone companies. Because such companies derive their revenues from long distance from the settlement plan, their total revenues are likely to be reduced if the price for long distance calling is reduced. Since they do not provide the long distance services themselves, they do not experience any benefits from the reduction in the cost of providing the long distance service. As such, for them, the revenues they receive for providing long distance and from providing local service are inextricably linked. In this, the independents are in a different position from the companies that are the primary carriers for long distance.

are inextricably linked. In this, the independents are in a different position from the companies that are the primary carriers for long distance.

The situation is different for the various members of Telecom Canada, depending upon the degree to which the costs of providing long distance and decisions affecting its costs fall to each member. To the extent that any member of Telecom Canada views itself as not receiving benefits from a technology-induced reduction of the costs of providing long distance, then participation in the settlement plan (with its diminishing revenues from long distance) necessitates a decision about rebalancing local and long distance rates, a decision that is seen to be undesirable on the part of at least some members of Telecom Canada we interviewed. The companies in this position resent the imposition of a telephone pricing policy which meets the needs of the major carriers only.

The situation is different, yet again, for those who provide long distance service but who are not part of Telecom Canada. Their argument is that any reduction in the costs of providing long distance services should be assessed in its own terms. Their fear, as expressed to us, is that the rebalancing alternative, especially when it is presented as necessary and inevitable, provides the major carriers in Telecom Canada with the opportunity to offer long distance services at "bargain" rates because costs can be recouped from other sources, such as local rates.

The structure of the industry makes it difficult for each of these situations to be taken fully into account in its own terms. The role of Telecom Canada in dealing with long distance rates and contributions confuses the regulatory picture, as is well known. The views and actions of Telecom Canada are of direct relevance in assessing proposals for telephone pricing policies. Yet Telecom Canada is an organization whose different members have different problems and different objectives. The members are dependent upon each other, yet the scope of their activities differs. To some degree, the consensus they reach is not subject to the direct scrutiny of regulation. Moreover, as a unit, the members of Telecom are in a position to exert considerable influence on telephone pricing policies because of the breadth of the association.

As long as the smaller telephone companies within Telecom Canada consider themselves to be net beneficiaries of the current arrangements -- they indicate in the interviews that they have done so in the past -- then the existence of such a diverse membership within Telecom Canada poses no major problem. In the event of changes in telephone pricing policies that affect them in different ways, the relatively easy agreement that has characterized Telecom Canada's decisions is compromised somewhat. From the interviews, this now appears to be the case.

For the independents, any change in telephone pricing policies is one that must be responded to locally. Since many of the independent telephone companies are municipally owned, and others have additional resources to draw upon, the result of any change in telephone pricing policies might be cushioned somewhat. Nonetheless, the structure and actions of Telecom Canada are likely to attract more attention from the independents in the future. For participants in the industry who are not members of Telecom Canada, the existence of a block of companies operating in association with each other, represents a significant problem.

For each of these groups, more extensive scrutiny of the actual costs of providing long distance service, and of their distribution, now becomes a higher priority. Although several of these groups we interviewed did not support the general principle of shifting to "cost based" pricing, they now support greater regulatory scrutiny of costs and their allocation by the regulator.

(e) The American Influence: There is no question that the environment for the provision of telecommunication services is changing, and that competition is a more important part of it. That said, it is important to know how much of the changes in Canada are reactions to the particularities of the situation in the United States. Among the groups we interviewed, there was a strong sentiment that the debate in Canada was a mirror reaction of a debate in the United States.

The perception by the American regulators we interviewed of the dynamic of change is as follows:

> .... The industry is no longer a total monopoly. The companies find it difficult to charge prices that differ from costs. If you are a monopolist you can charge virtually anything you want, discriminating among different classes of customers so long as your total revenues are enough to cover your total cost. If you face competition, you find it difficult to charge prices above cost, so some of this is changing. (FCC staff member)
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> .... The whole theory behind what the FCC is doing is that competition in the marketplace is better suited to determining what customers pay for equipment and services than the FCC is. The monolithic regulatory structure was eroded away by court decisions...Once those things were set in motion, local telephone companies decided that they were going to have to make sure that they had a foolproof way of recovering costs. (House of Representatives Committee staff)
>
> .... There are a number of factors driving telephone pricing. One is a short term effect, which is that interest rates are declining. And in the US we have an original cost system of rate-making which means -- not perfectly -- that telephone rates are interest rates sensitive. We look at the cost of capital for telephone companies ...and the cost of capital is very interest rate sensitive...US interest rates have come down, and I think will generally be falling in the future. This will cause telephone rates to fall. (FCC official)
>
> .... A lot of people point to the divestiture of AT&T as being the big lynchpin in all this, but I think the rate structure has been changing for a couple of decades, well before divestiture, five years before divestiture in 1978. The FCC undertook the act, its access charge proceeding, in which it wanted to restructure local rates, and the way that telephone companies recover their costs...I think that the FCC's deregulatory policies have just as much bearing on what the consumers face now, and what business does, as divestiture does. (FCC staff member)
>
> .... By-pass has been around for years and years, but by-pass did not really emerge as a term, a buzzword, on Capital Hill until the early 1980s, after divestiture. Suddenly there were independent operating units, and they were a little worried about what was going to happen to them, whether they were going to be by-passed by their former parent (and that is certainly going on today). There is a lot of that, by-pass, depending upon whom you talk to, but it is really quite prevalent. But it is really only taking off the top two (percent?) of the business users who really have the money and the reason to by-pass. I don't think most small business users have the ability or the money to by-pass. (House of respresentatives Committee staff)

A number of people raised the question of how relevant the American issues and policies were in the Canadian case. For example, the question was raised by several people we interviewed about how much the by-pass threat was indigenous to Canada. For example, a business group representative said:

> If it had not been for the threat of business slipping over the border, and so much attention being focussed on telephone deregulation in the United States, the whole push for rate rebalancing would not have materialized.

The same point was raised by two different telephone company officials, who otherwise take a very different perspective on rate rebalancing:

> .... The real pressure...I don't think it is really all that complicated. People look longingly to the south to see what has happened there. I am not talking about residential phone users, but business. Such people keep rattling on about how communications is the third highest expense, even though it has been disproved. ..So what happens is that you get big business looking at their telecommunications cost, and they don't care whether the residential phone costs go up, as long as their long distance goes down. I don't think you can necessarily fault them. (one telephone company official)
>
> .... Talking in terms of universality, what has happened in the United States has influenced us. I think we are also aware that we are in a different set of circumstances, so that we can't be totally influenced by what goes on in the United States.....I guess philosophically, we tend to say that whatever is an issue in the United States is going to be an issue within Canada within the next decade. So in terms of addressing issues, it is a question of when you start to get ready to address that issue. I jokingly said with the Carterphone decision that sooner or later the whole subject of interconnection and competition would become an issue in Canada. It was a question of timing. (two telephone company officials from another telephone company)

The American influence is seen as a not altogether beneficial thing. As a telephone company official commented:

> They made an absolute disaster of the whole thing...it is important to have deregulation here but it has to be logical deregulation....You've got to have a critical mass...This is a very small country.

The question of the influence of the United States takes on a different meaning in light of the free trade negotiations. A telephone company official stated:

> The free trade agreement could involve trading services....You know there is a multiplicity of carriers in the United States which could probably commence operations here in Canada given the right environment. Then too, some of the larger business customers -- the technology is there to develop their private networks.

And a union representative commented:

> What I am arguing is that a lot of the serviceable parts of the status quo will be swept away under a free trade agreement. Where I see Bell and B.C.Tel standing should a free trade agreement be reached is to argue that if the players from the U.S. get to operate in the Canadian markets, then the government must ensure that there is comparability with respect to the rate structure. They are saying that we cannot expect to maintain the present rate structure with the new players.

This, of course, is quite a different argument than the oft stated view that Canadians often emulate American policy initiatives, regardless of the differences between the two countries. *The point being made by the last two people cited is that the pressure to change the Canadian approach to rate making originates in a desire to harmonize the situation between Canada and the United States in light of possible entry of American carriers into the Canadian market, should the free trade agreement be reached.*

With these comments, it is time to turn to a different source of data, the current debate generated in hearings, by governments and by the scientists. The goal is not to provide a survey of the literature, but to see how the kinds of issues raised in the consultative study have been dealt with in other contexts.

Part Two: The History and Current Literature
Chapter Six: Definitions

Overview:

There is much uncertainty and debate about the meaning of the key terms in the telephone pricing debate. The Mongeau report provides definitions of the key terms as a guide for the discussion of various policy initiatives. This adds a false certainty to the discussion, for these same terms have been used historically and in the current debates to mean many different things.

This situation is not just of academic interest. Very different consequences follow from accepting different definitions of key terms such as "universality" or "basic service". Indeed, even in the international arena, the debate is as much about definitions as it is about the specific policies to be followed. By accepting one definition of "basic service", as opposed to another, certain decisions about how it will be regulated have already been made.

The American literature and debates are a useful illustration. For example, a narrow definition of "basic" service -- albeit not as narrow as the contention in the United States that basic service only includes the capacity to call -- means that the new technological capacities of the telephone system will not automatically, and without additional charge, be available on a universal basis to the residential consumer if they are subject to competition or can be priced separately. The American literature is useful because it indicates that the confusion over terminology is endemic to the telephone pricing debate, and that even "cost based" pricing is not very useful until one knows *which* "cost based" pricing approach is being discussed.

Definitions also provide a window to the underlying concerns of those engaged in the debate about telephone pricing policies. For the purpose of that debate, for example, it is helpful to know what people actually mean by universal service, especially if groups have different interpretations of it.

It is useful to know whether a rigorous concept of "value of service" or even of "cost based" pricing is being used, or whether these terms simply stand in for everything that has been done historically in telephone pricing and all possible current initiatives.

For example, it has been said that, historically, the CRTC and its predecessor agencies have followed a "value of service" approach to pricing. If one examines the CRTC initiatives and decisions of the past decade, the conclusion is inescapable that the term "value of service" describes its approach to regulation *only* in the narrowest and most limited sense. Of course the CRTC has also taken costs into account not only through its Cost Inquiries, but also in specific applications for rate increases for local (universal) telephone service.

What is true is that the CRTC has adopted a particular costing approach through its Cost Inquiry 11, but has not applied it exclusively or extensively in all of its decisions on various applications. What is also true is that the distinctions between residential and business and rural and urban service -- distinctions that are based on "value of service" concepts -- have, by and large, been left intact by the CRTC. Moreover, there has been considerable tempering of the demand to rebalance local and long distance rates by other considerations, including those having *no* reference to "cost based" pricing philosophies.

Thus, one must be careful in identifying key terms, defining them and applying them to specific situations. If "value of service" can legitimately be used to describe the historical approach in Canada to telephone pricing, the historical approach includes many actions that do not fall within a "value of service" perspective at all. Moreover, one could argue, using the same data, that the CRTC has always taken account of "cost based" pricing considerations.

Thus, the debate about the adoption of a "cost based" approach has specific characteristics in Canada. It is a debate about the extent that the "cost based" approach will be applied to various services, to the possibility of rate rebalancing, and to the provision of local service by LMS.

It is also a debate about whether adoption of a "cost based" approach *inevitably* leads to the type of pricing philosophy that is evident in the United States (irrespective of differences in the industry structure in the two countries).

Following from this last point, it is a debate about whether proposals to eliminate subsidies (particularly but not exclusively cross-subsidies) is relevant in the Canadian case. In this last case, the debate reflects a deep-rooted concern for the future of universality.

Background Data:

(a) Introduction: There is now an extensive literature on all aspects of telephone pricing. In addition, a series of working papers were prepared for the Mongeau committee, and the CRTC has reviewed a wide variety of information in its hearings and as submissions on various issues. It is not the intention of this report to review or evaluate this literature.

The purpose of this section of the report is to examine the literature described above to see how the kinds of issues raised in the consultative study are reflected in it. Thus, the primary concern in this section is with definitions of the key terms, "value of service", "cost based" pricing", "basic service" and "universality".

Much of the literature, including submissions by consumer groups to regulatory hearings is of a technical nature. It deals, for example, with the methodologies of effecting cost separations or provides various models of the economic impact of particular policy decisions. We have dealt with this literature only to the extent that definitions of key terms have been provided and objectives for public policy articulated within it. To have done otherwise would have involved us in the type of objective and analytical work undertaken by the Mongeau committee.

Much of this literature also refers specifically to events and decisions taken in the United States. Here, the question of its relevance is more pertinent. We have incorporated the American literature, or at least a few key items, in this study because the consultative study has indicated that the American example is one that is closely watched in Canada. We are convinced that the terminology, and possibly the "objectives", of the American debate have influenced -- indeed been imported into -- the Canadian debate. Thus, it is relevant how "value of service" is defined in the American context, even if it were later to be determined in another study that the conditions under which the definition was developed are different in Canada from the United States.

One point of distinction between Canada and the United States should be noted at the outset, however. The prevailing theory of regulation locates its origins in the attempt to control monopolies, or potential monopolists in the absence of competition. The regulator serves as the proxy for the market, where market forces cannot be presumed to operate. A further extension of this theory is that there are special obligations imposed upon government in the case of public utilities that operate as monopolies, in terms of their service to the public.

We have no doubt that this explanation of the origins of regulation has applicability in Canada. We simply want to draw attention to the fact that almost all analysts of regulation in Canada, including the author of this report, locate the origin of regulation in Canada, at least in part, as social and political policy. Even when particular sectors are not characterized by monopoly or monopolistic practices, regulation has been instituted to serve other than market-oriented goals.

The various analysts of regulation disagree among themselves as to the degree to which social and political regulation (as opposed to economic regulation) exists in Canada, and to the desirability of it. This author is on record as arguing that social and political considerations often outweigh market-oriented ones in the development and continuance of regulation. She is also on record as considering this phenomenon to be desirable for public policy.

The point to be made here with reference to the literature on regulation, and the arguments advanced by the author in other contexts about the origins of regulation, is a simple one. The rationale and definitions of key terms in both countries are shaped by the origins and expectations of regulation in each context. To the extent that regulation in Canada is designed to achieve social and political purposes (a point that will not be debated here), then one cannot simply import the definitions of terms from the United States and assume that the terms have had the same meaning in Canada.

Not enough work has been completed yet on the origins of regulation in Canada, or on the telephone pricing debate, to know to what extent the definitions and historical view of the objectives of telephone pricing policies in the United States are applicable in Canada. The American material is cited, because it is important in any case. It is provided in each sub-section as an introduction to material drawn from the Canadian literature. No assertion is made as to the extent of its relevance (neither a positive nor a negative one), other than by influence, to the Canadian case.

(b) "Value of service": Historically in the United States, "value of service" is associated with charging different rates for different services and different classes of subscribers. Although the question of what constitutes "value of service" has been addressed in several court cases, the case that appears to have established "value of service" as a basis for rate regulation was the 1898 U.S. Supreme Court decision, Smyth v. Ames. In this decision, the U.S. Supreme Court established the general rule that a company is entitled to a fair return on the fair value of its property devoted to a public service. Fair value should be based on:

> ...the original cost of construction, the amount expended in permanent improvements, the amount and market value of its bonds and stock, the present as compared with the original cost of construction, the probable earning capacity of the company under particular rates established by statute, and the sum required to pay operating expenses....are to be given such weight as may be just and right in each case....What the public is entitled to ask is a fair return on the value of that which it employs for the public convenience. On the other hand, what the public is entitled to demand is that no more be exacted from it for the use of a public highway than the services are reasonably worth.[1]

In 1933, Heyman examined how the term "value of service" had been interpreted by the U.S. courts. [2] The observation was made that the term had many interpretations and that it could be regarded as a "catch-all for every doubt". She concluded that the courts' attempts to render better or more exact definitions of the concept had not cleared the air, and that the term was open to interpretation in multiple ways ranging from being a shield for protecting subscribers to a justification for price gouging.

Others have suggested that "value of service" pricing is a means of dealing with the paradox of overhead costs.[3] The only way out of the problem of allocating costs in a situation where many of the facilities are common ones is to engage in price discrimination under which "overhead costs must be levied upon those parts of the business as will stand the burden, while other parts of the business, which otherwise cannot be had at all, are charged what they can pay, regardless of overhead costs."[4] In discussing the question of overhead costs in conjunction with "value of service" Clark argued that price discrimination "creates more problems than it solves and can degenerate into sheer favouritism.", yet he, like others writing before him, maintained that proper application of the principle "will bear positive results, but that there is plenty of latitude for improper interpretations".[5]

In the very early debates, the issue arose about the similarity of regulatory and taxation policies, and the desirability of using regulation to achieve social, ethical or redistributive goals. For example, in 1891, Taussig questioned whether rates should be, and were being derived from ethical considerations. He argued instead that the rate structure could be explained by the laws of exchange which operate in a competitive market.[6] In speaking about railway costs, Taussig noted that railway services were produced partly at joint cost, and that the paradox of overhead costs applied to the railways. He observed that multiproduct firms produced several commodities which were "subject to demand from different quarters with different degrees of intensity."[7] Thus, he argued, the nature of the demand for goods being shipped affects the value of each service being provided by the railroad. He stated:

> To this joint cost, each commodity or service will contribute in proportion to the demand for it. It will contribute more and sell proportionately high if the demand does not need to be tempted by low prices, and will contribute less and sell proportionately low if a high price tends to choke off demand.[8]

For Taussig, then, "value of service" reflected the demand for services, including different rates for different commodities within the same class of traffic. The predominant influences on the rate structure were the conditions of joint cost and joint supply. The resulting rates worked themselves out "in the long run from the play of economic forces."[9] He realized that other issues, such as the degree of monopoly, came into play, but in his analysis Taussig assumed a competitive industry.

Taussig did not equate the terms "value of service" and demand-based rates, however. He noted:

> (The) common but necessary connection between the value of goods and the rates charged on them has led to the proposition that "the true pricing principle governing railway rates is not the cost of service but the "value of service".[10]

The issue of whether rates should be based on "value of service" became the subject of a heated debate in the academic literature in 1912, when Pigou argued that discriminatory rates were the result of the exercise of monopoly power rather than the basis for efficient pricing policies. Pigou argued that the ""value of service" principle was "discriminating monopoly to the third degree",[11] having defined the "third degree of monopoly" as when a monopolist was able to charge a separate monopoly price to each customer within a given class of traffic. He argued that the railways were fond of the "value of service" concept because it allowed them to classify traffic on the basis of wealth and ability to pay. Pigou suggested that the problem of joint supply had been misinterpreted:

> ... the carriage of tons of different things from A to B *is* a single homogenous commodity, on precisely the same footing as plain cotton cloth. The fact that some 'carrying of tons' is sold to copper merchants and some to coal merchants does not imply that two different services are being provided...There remains one sort of thing and one only. Joint supply, however, implies the presence of at least two sorts of things, since obviously no commodity can be supplied jointly with itself.[12]

Pigou then argued that joint supply did exist when services were offered under different conditions, as, for example, when day and night service was being offered.

This debate was taken up in the Quarterly Journal of Economics.[13] In effect, the two protagonists, Taussig and Pigou, had arrived at similar conclusions on the basis of different arguments. Pigou posited his argument on a general theory of monopoly and Taussig on an analysis of joint costs. They differed in their assessment of the conditions under which it would be profitable to charge uniform mileage rates. Pigou viewed discriminatory pricing as an abuse of monopoly powers, and did not associate the "value of service" principle with competition. Taussig was speaking about a competitive environment, and viewed discriminatory pricing based on consumer demand elasticity as necessary for the efficient recovery of total costs.

Others have suggested that rates should be based on the "value of service" principle, for using discrimination of rates as a means of ensuring that subscribers pay no more than what is reasonable. A second legal decision is often cited, Covington and Lexington Turn Pike Road v. Sanford:

> If a corporation cannot maintain such a highway and earn dividends for stockholders, it is a misfortune for it, which the court does not require to be remedied by imposing unjust burdens upon the public. So that the right of the public to use the plaintiff's turn pike upon payment of such tolls as, in view of the nature of the "value of service" rendered by the company are reasonable, is an element in the general inquiry whether the rates established by law are unjust and unreasonable.[14]

This decision established that a company cannot pass on losses due to declining patronage resulting from competition to subscribers who have no alternatives.

In the 1930s, Fisher noted that judicial opinion seemed to support the contention that "the "value of service"" rendered is the upper limit beyond which the rate schedule cannot be supported. He argued that during a depression, when subscribers have decreased purchasing power, if a utility continues to collect revenues that are approximately constant, the utility is charging rates in excess of the "value of service". He noted:

> There is no good reason why a utility, operating under the protection of a monopoly grant, should be insulated completely from the impacts of a major depression.[15]

In the depression years, then, the "value of service" concept was associated with an ability-to-pay standard, although a different meaning was attached to the phrase "ability-to-pay" than is common today.

Later, others questioned this association of "value of service" with the ability-to-pay standard. For example, in 1961 Bonbright argued that both "value of service" and the ability-to-pay standard involved price discrimination, but under the ability-to-pay standard:

> ...lower rates should be charged to individuals of lower income regardless of the question whether or not lower income corresponds to a 'higher price elasticity of demand' for the service...Indeed, since wealthy consumers may have feasible alternatives not available to poorer consumers, the price they could be made to pay for a utility service might be even lower than the

> prices that could be imposed on poorer customers.[16]

Bonbright described the economic rationale for "value of service" as a means by which regulators could compensate for some inconsistencies inherent in a "cost based" standard. He noted that it is a "relatively harmless means of making good the deficiency in total revenues that would result from the sale of all public utility services at mere marginal or out-of-pocket costs."[17] He also noted that the "value of service" concept does not lend itself to quantitative expression.

This very brief summary of the American historical debates ends with Bonbright's contribution in 1961, because much of the more recent literature is more directly concerned with "cost based" pricing. As Garfinkel notes:

> It is only since 1970 that we have a sizeable amount of economic literature published on the telephone rate structure, and that mostly confined to intercity and competitive pricing and costing. Very little until recently has been published on the future role of the "value of service", relative to the cost basis of determining the basic exchange service.[18]

In the recent literature, "value of service" pricing becomes almost a residual concept, a part of a prescriptive analysis directed at supporting "cost based" pricing. For example, Bolter uses "value of service" in conjunction with an argument for a particular approach to "cost based" pricing.[19] He states that "value of service" pricing should be viewed in conjunction with the benefits received principle of just taxation, which holds that a taxpayer should pay taxes in line with the benefits received from the public, in other words in light of "cost based" criteria. In other instances, "value of service" is a term used only as a general description of the acknowledged pricing policies of the telephone companies.

Brock does provide a contemporary American view, perhaps an unconventional one in the context of the American debate about "cost based" pricing methods. He suggests:

> The telephone system is comparable to a system of public roads. A very large investment in public roads is necessary to allow people to move freely from one place to another, regardless of the volume of traffic. As traffic increases, costs increase...but many of the costs are incurred in simply providing access to practically anywhere. The value of the roads increases with the range of places to which they reach, as does the value of complementary goods such as automobiles....Roads, telephones and local distribution systems for water...are so commonly available that most consumers consider it their "right" to have access to them...In other words, the cost of the system is not simply the sum of the cost of serving each person.[20]

And Levin and Gillan echo some of the findings from our consultative study. They argue that, historically, a series of subsidies were received by the local exchange companies to reduce local exchange rates. The method used to provide subsidies "made Bell an accommodating partner". The result was, they argue, a price structure that:

> "was neither based on cost nor "value of service". It was rather a 'political' price structure."[21]

If one turns to the Canadian literature, it is interesting how little of it there is, and more particularly, how little is of a analytical nature. Most of the studies we have been able to locate are either those conducted for the Mongeau committee or studies submitted in support of briefs to the CRTC. There are several factors that may account for the lack of analytical literature on telephone pricing.

First, it is a characteristic of the American political and legal system, and particularly of American tribunals, that attention is directed to the articulation of formal principles or "rules". Canadian administrative process is noteworthy for the absence of such principles, and for decisions that are pragmatic (in the non-perjorative sense of the word) rather than rule-oriented. The difference lies in the nature of administrative law and the different roles played by litigation and the courts in regulatory decision making in the two jurisdictions. This point is taken up, in part to propose reforms, in a recent article by Janisch.[22]

Second, a significant change in regulation was made in the mid-1970s, with the assumption by the CRTC of the responsibility for telephones and telecommunications. It is only after the CRTC became highly active and expert in the regulation of telecommunications that the general question about how to regulate rates was addressed fully. Indeed, one might argue that interest in pricing policies, as opposed to specific regulatory decisions, is a very recent phenomenon. If this is correct, it would not be surprising that a significant literature had not yet been developed in Canada.

Finally, as noted above, there is some disagreement among analysts of regulation about the degree to which regulation is governed by social and political considerations. To the extent that it is, the principles to be applied are those connected with social or political policies, such as redistribution. Questions of how to maintain universality and how to extend the service to remote areas may have taken precedence in the Canadian case over the debates about the causes and consequences of rate differentials or elasticities of demand.

Nonetheless, one Working Paper for the Mongeau committee suggested that "value of service" rating is extensively applied in practice in the case of local services, where it is the basis for rate group structures and for the differences between residence and business rates"[23] and even in long distance rating. Even in this context, however, it is acknowledged that social and political factors were taken into account by the CRTC. For example, the same Working Paper notes:

> The practice of setting separate, lower rates for the Remote North was first implemented in 1978 because the CRTC was concerned with the level of telephone service costs borne by these subscribers. The extent to which these subscribers depend upon long distance service due to population dispersal and distance from essential services was also a consideration.[24]

The same point was made in the study commissioned from Peat, Marwick and Associates for the Mongeau committee. The study uses an economic analysis to evaluate the implications of rate rebalancing. Nonetheless, it was noted:

> It is highly probable that the social sectors that would gain net benefits from being able to make more or longer toll calls are not the same sectors that would have to give up basic telephone service as a result of higher local rates...This issue must be addressed by those responsible for defining public policies.[25]

What are we to conclude from the literature on "value of service"? In the consultative study, it was suggested that several different definitions of "value of service" were in use, and that one of the definitions simply equated "value of service" with the conventional manner in which pricing has been done for many years. The analytical literature suggests the appropriateness of the same conclusion. In it, "value of service" is a term with several definitions and many quite different associations. Attempts to be rigorous in defining or analysing the effects of "value of service" pricing have not been very successful. Indeed, such commentators as Bonbright may be correct in asserting that "value of service" does not lend itself to quantitative assessment. As we noted, others -- including studies conducted in Canada for the Mongeau committee -- have underlined the political and social decisions that have been made either as "value of service" pricing or in conjunction with it.

There have been many attempts in Canadian studies, submissions to the CRTC and even by the CRTC to define "value of service" in a uniform and useful way. The assertion has been made that ""value of service" pricing" represents a specific approach to pricing telephone services.[26] For example, the Mongeau report begins with a definition of this term, and of company-wide averaging.

On the basis of the consultative study, and the historical review of the literature we have conducted, we doubt that the term "value of service" refers to specific pricing principles, even as elaborated within the Mongeau report. On the basis of the research, we would conclude that "value of service" often implies reference to a broad range of considerations that are not, strictly speaking, associated with the costs of any specific service. "Value of service" seems to imply that social and political questions have been considered relevant in telephone pricing policy, as well as "charging what the market will bear". We will return to this point in the discussion of the objectives for public policy.

(c) "Cost based" Pricing: Although there is much more literature on "cost based" pricing than on the "value of service", less attention will be given to it in this report. There are two reasons for this decision. First, in the economic literature, attention is given to the rigor of different definitions -- which represent different methodologies -- of "cost based" pricing. The debate about "cost based pricing" centres around two concepts, "embedded direct cost" based pricing or "fully distributed cost..." based pricing, both of which are ways of allocating costs, many of which are common to a variety of services.

A more general definition of "cost based" pricing is not given, other than that "costs should be reflected in prices". Using the general definition, however, one would be hard put to argue that the CRTC has not been engaged in "cost based" pricing for many years, but surely this is not what the dispute between advocates and opponents of different approaches to "cost based" pricing is about.

The second reason for this decision is that most of the literature on "cost based" pricing deals with methodological issues. Although such issues, and their resolution in specific proposals for "cost based" pricing methods, embody some general principles, the important point for the purpose of this study is to identify and contrast a "value of service" and a "cost based" approach, rather than adjudicate the differences among the various "cost based" approaches.

In the consultative study, we found that "cost based" pricing referred to two things. It referred both to a general principle that prices should be designed to reflect costs *and* to a number of specific proposals about how this might be accomplished.

For example, rate rebalancing was said to reflect the general principle that prices should reflect costs, but at the same time it was being proposed as one, but not the exclusive means of implementing a "cost based" approach. The question of whether the implementation of "cost based" pricing necessarily required acceptance of the rate rebalancing proposals is one that was much disputed among the interviewees. Similarly, some interviewees believed that "cost based" pricing and LMS were all but synonymous. Others disputed this contention, arguing that the transition to "cost based" pricing did not necessarily involve the introduction of LMS, either now or in the foreseeable future.

In the consultative study, it was noted that the apparent rigor of the definitions of "cost based" pricing was less than evident upon close examination, and that in some cases, "cost based" pricing referred only to a contrast in pricing approaches between what had historically been done in Canada, and the proposals (rate rebalancing, terminal attachment, etc.) that were being considered or adopted at this time.

The American literature is only a little less ambiguous about the definition of "cost based" pricing than the interviewees for this study have been. In the material we have surveyed, a contrast is made between "value of service" and "cost based" pricing, the different methods of implementing "cost based" pricing are debated, and some issues are raised about the advisability of useage and of traffic sensitive pricing and the relationship of both to "cost based" pricing. A few examples will suffice.

Wilson provides a telephone industry perspective, and one model of "cost based" pricing, in contrast to traditional methods of pricing telephone services. To introduce his analysis, he states:

> If these policies (policies designed to achieve universal service) were to be abandoned, if rates were to be brought much closer to or actually at caused costs, rate levels and more notably rate structures will have to be changed. The objective will be to have each customer pay for what he uses -- the costs he actually causes...A cost-oriented rate structure must establish charges to the customer that vary as cost vary.[27]

He outlines in some detail how the rates would be made up for each component of service, including the "customer charge", the "local message charge" and the "long distance message charge".

Copeland and Severn also contrast the "value of service" and "cost based" approach. They argue:

> Historically, the pricing of telecommunication services has been on a "value of service" concept in which services are priced according to their value to a defined group of customers, rather than on a strict "cost of service" approach typical of other public utility services....Many economists contend that historical pricing policies involve persuasive cross-subsidies...The economists' attacks imply -- with very little supporting empirical evidence -- that the traditional pricing policies have distorted resource allocation.[28]

Copeland and Severn cite Kahn as an example of the principle of "cost based" pricing. Kahn said:

> The simple economic principle is that you don't charge people for benefits the enjoyment of which imposes no cost to society. The proper price of each good or service is what it costs society to supply it -- not how much people benefit from it.[29]

Copeland and Severn note that "the current pricing reforms rest on the proposition that all services be priced at cost, a premise which departs significantly from the "value of service" concept".[30] In describing the situation, Copeland and Severn take issue with Kahn, and others advocating strict "cost based" pricing approaches. They see such approaches as reducing the cost conditions underlying the supply of telecommunication services to a "simple economic principle".

As we noted above, a far greater proportion of the current literature is devoted to a comparative analysis of different "cost based" approaches. In one article, the debate is described (by one of its protagonists) as being between what Bell has advocated, and the position advocated by F.C.C. staff witness Dr. Melody. It is a debate about the relative worth of two "cost based" principles, "embedded direct costs" and "fully allocated costs, based on relative use".[31] Among other issues underlying this particular debate is who should bear the burden of costs of facilities upgrade that are required by some but not all of the users of the system. For example, Melody argues:

> For measuring cost causation in local telecommunications facilities, one must recognize the opportunity cost of independent supply for each of the major types of service, local, toll, and possibly enhanced services. The basic functional characteristics of the common facilities must be examined to determine the extent to which each of the services causes the facilities investment and expenses to be at the levels that are incurred.[32]

Surveying the debates in the American context, the Canadian analytic literature and the proceedings of the CRTC, it is interesting to note how little influence the specific issues from these debates have had yet in Canada. Woodrow and Woodside sum up the situation, as it has also become evident in this research. They state:

> The growth of competition and the emergence of both regulated and unregulated markets in telecommunications have pushed the problems of costing, pricing and cross-subsidization to centre stage...competition from new entrants in what were previously monopoly markets as well as the expansion of the traditional telecommunications companies into other areas of the 'information business' has brought the continuation of cross-subsidization into question on both economic and broader social grounds....At heart of all these issues is the question of costs and *what role they should play in pricing* (emphasis added).[33]

Woodrow and Woodside locate the centre of the debate in the question of cross-subsidies, rather than in specific costing methodologies. They draw attention to the CRTC's attempt to come to terms with the cross-subsidy question through its cost inquiries.

They argue that Phase II of the Cost Inquiry "saw the CRTC accept an incremental costing methodology and require that, once such new services were profitable, they should contribute to the maintenance of lower rates for local service". Only in Phase III, not yet completed, has the CRTC focussed directly on the development of a costing methodology.[34] They do not suggest, nor is there any other evidence to suggest that a decision on an appropriate costing methodology would render other considerations with respect to telephone pricing irrelevant. They present no evidence in Canada that a "simple economic principle" of "cost based" pricing will be used to determine rates.

In summary, then, there is within the literature a more precise definition of "cost based" pricing than is the case for "value of service". On closer examination, however, this more rigorous definition refers to one of perhaps several costing methodologies, and a debate about its usefulness can also be identified. Nonetheless, regulatory decisions in the United States now rest on the regulators' assessment of the meaning, and thus the means of implementation of one definition of "cost based" pricing.

What distinguishes the Canadian approach is that the principle of "cost based" pricing, however rigorously it is or will be defined through the Cost Inquiries of the CRTC, is not yet seen to be the sole, or even perhaps primary source of telephone pricing decisions. Rather, "cost based" methodologies are seen to function in aid of making decisions that take a number of different factors into account, by providing information about the level and extent of cross-subsidies.

(d) Basic Service: The problem with defining basic service is determining what level of service should be considered to be basic. The term "POTS" or plain ordinary telephone service has come to mean something other than its conventional association with the black rotary phone, since now the phone itself can be purchased separately, and thus is not always included in the "basic" service provided by the telephone company. "Basic" in the parlance of some telephone companies has come to mean access to the network. Again, however, the question can be posed about what level of access should be considered to be basic. Is a two party or four party line "basic", or does "basic" service refer to private line service only?

Underlying these questions are two issues, both of importance for telephone pricing policies. The first is related to the marketing strategies of different telephone companies, some of whom prefer the wider definition of "basic" in order to satisfy their customers, while others seek to sell separately the "frills" of a more advanced technological telephone system.

For example, some telephone companies include the telephone itself, while others do not, in the provision of basic service. Even such "frills" as call forwarding can be included in the definition of the basic service, for the purposes of marketing. The questions facing regulators and policy makers is which marketing strategy concerning "basic" service should prevail for the purposes of regulation, and what recognition should be granted to other marketing approaches in developing telephone pricing policy? The answer to these questions is difficult, for some of the telephone companies pursuing different market strategies with respect to "basic" service" do not fall under the jurisdiction of the CRTC.

The second issue with the definition of basic service is related to the capacity of the technological facilities, and the allocation of costs in relationship to capital expenditures on those facilities. Proponents of a more limited conception of "basic" service draw attention to the fact that the new enhanced communication capacity only serves a limited (primarily businesses who process and communicate large bodies of data) clientele. They argue that the enhanced capacity is often constructed at the expense of local subscribers, primarily residential subscribers.

These issues pose a dilemma for consumer, community and union groups. On one hand, members of such groups argue that the newly upgraded facilities should be included in the definition of "basic" service, in part because these services are part of the entitlement of universality (the state of the art technology in the provision of local service). Some also argue that a failure to provide facilities for enhanced communication capacities at an affordable cost to residential subscribers would lead to a situation where new divisions in society, between the information rich and the information poor, would occur.

On the other hand, these groups sometimes also argue that the costs of increasing technological capacity is often borne primarily by the residential subscriber who has little need to call upon the newly available resources provided by the upgraded system. In our interviews, this dilemma was most often resolved in favour of the upgraded "basic" service, the more comprehensive notion of universality.

The debate over what constitutes "basic" service has taken an interesting turn in the United States, as a result of divestiture primarily. A description of the difference between basic and enhanced service is provided by Miles, who suggested that "the rapid pace of technological change forced the Commission (FCC) to attempt and disgard a variety of approaches during the inquiry (The Second Computer Inquiry, Computer II)".[35] Miles argued that the FCC had adopted the following guideline to distinguish the two:

> By the time of its Final Decision, the FCC had refined its approach down to two categories: 'basic transmission service' and 'enhanced services' The former is 'limited to the common carrier offering of transmission capacity for the movement of information' that is 'virtually transparent in terms of customer supplied information'. Thus a carrier may modify a customer's information to accommodate it to various transmission media and still only be providing basic service, as long as the customer gets essentially the same information out at one end that he put in at the other. Enhanced services, on the other hand, are offerings which add computer processing to 'act on the content, code, protocol and other aspects of the subscriber's information' resulting in 'additional, different or restructured information' being provided to the customer.[36]

But this distinction between basic and enhanced did not resolve the issues fully, as the following example suggests. Some services conventionally considered to be basic, such as the emergency number 911, in fact depended upon a computer processing capacity that was not envisioned in the basic service provided by the Bell Operating Companies after divestiture. AT&T had argued in 1982, for example, that:

> The 'basic' nature of E911 requires clarification because the service relies in part on computer processing and information storage...Only a few vendors have expressed interest to date in providing E911 functions...In addition, it is unlikely that (customer premises equipment) related to all 911 services will be widely available if the BOCs are foreclosed from its provision.[37]

In this instance, the clarity that was envisioned with divestiture, and in the Second Computer Inquiry, did not resolve the problem of what to do with services that the public would likely regard as both necessary and (in laypersons' terms) "basic". Moreover, in 1983 at the Joint Hearings before the Committee on Commerce, Science and Transportation (US Senate) and Committee on Commerce and Energy (US House of Representatives), the use of the following definition of basic telephone service does not appear to solve the problem either. It stated:

> ...basic telephone service shall mean residential voice grade communications provided to the general public on a universal basis over the public switched network for use by natural persons to communicate with each other by voice.[38]

One of the Working Papers for the Mongeau committee provides the most comprehensive checklist of what might constitute basic service.[39] This list does not include the telephone itself, but it does include "access to the company's operators", "maintenance and repair service", "directory listing and one or more directories" and "directory assistance listing and, in some cases, directory assistance calling." If the American experience is any guide, and the variation in the provision of services by different Canadian companies is taken into account, then these last features of basic local service need not necessarily be included in the provision of basic service, and indeed there are some proposals that they should not be so.

The CRTC has adopted the FCC approach to the definition of basic services, more or less without alteration. For example, the decision on enhanced services in 1984 states:

> In the provision of basic service, memory or storage within the network is used only to facilitate transmission of the information from the origination

> to its destination, and the service provider's basic transmission network is not used as an information storage system.[40]

In the arguments before the CRTC, however, it was noted that "Island Tel, MT&T, NB Tel and Newfoundland Telephone were also in favour of adding voice and data storage and retrieval to the definition of basic service", and that Bell "sees the basic service category as an evolving floor package of services".[41]

Bell sought a definition of enhanced service "as a service which can be provided under conditions of open market entry", thus using a standard of whether competition existed or was possible as the means for determining whether a service was basic. In Bell's view, a basic service was simply a service for which no current or potential competitors existed.

This research suggests that a discrepancy exists not only between what Bell wants, what some other telephone companies want and the CRTC's definition. It suggests that the CRTC, and indeed also Bell's definition involve a continuing narrowing of the definition of basic service, at least in terms of the new services now becoming available. At the same time, for many of the groups discussed above, the definition of basic service should "grow with the technological capacity of the industry to provide it".

(e) Universal Service: In the consultative study, two differing interpretations of universality were identified. One defined universality in basically technical terms, as the number of households (private residences vs ready availability) with access to some level of telephone service (private line vs two party) at an affordable price (the current level vs something "reasonable" given the price of other utilities). The other rested on the notion of entitlement, and considered the capacity to use the local telephone (POTS vs the system at its full technological capacity) a right to which all Canadians were entitled.

It was noted that the industry (by and large and with some exceptions) and the Mongeau report used the technical definition, partly because it simplified the implementation of public policy and regulation. For many of the groups interviewed, universality was viewed in its broadest sense, and even an almost complete penetration of telephones did not, in itself, guarantee universality.

In light of the often suggested differences between Canadian and American views about the public interest, it is interesting to note that the same debate has occurred in the United States. What is different between the two countries is the implications drawn by at least some economists from the use of the technical definition of universality. We will return to the differences between the two countries.

In 1984, an interesting discussion took place in the US Senate, as recorded in the Congressional Record.[42] It drew implicitly upon the 1934 Communication Act, which stated that Universal Telephone Service meant:

> To make available, as far as possible, to all the people of the United States, a rapid, efficient, nation-wide, and worldwide wire and radio communications service with adequate facilities at reasonable charges.[43]

The record lists a number of justifications for the broadest (and least technical) definition of universal service. These are:

> Quality of life measures, indicating the value of such services as emergency communications, entertainment and pleasure calls and security checks, show that the well being of phone users is greatly improved.
>
> Basic contact with the outside world should be available to virtually all Americans at similar prices on the equity grounds of equal opportunity.
>
> The basic phone link is but a conduit to a wide and growing array of communications and information services. As our economy becomes more computer-oriented, this connection becomes ever more important.

> National security requirements and the public interest are served by keeping the extensive phone network intact.
>
> Regional isolation of radically different prices by region run counter to the policies promoting a unified nation...[44]

The author of this submission to the Senate debate does not believe that the gains through new technology and competitive advantage must be sacrificed to preserve universal service. He proposes a number of measures, none of which is LMS or Lifeline service, to achieve universality.

Bolter et al summarize the other view, which is that the competitive market for telephone and telecommunications perhaps endangers the goal of universal telephone service.[45] They suggest that "this may stem from the absence of incentives for profit maximizing suppliers to serve both high and low cost customers", but notes that it may also "be due to the existence of nonuniform income distribution patterns, the inability of governmental authorities to subsidize service without interfering with competitive forces themselves".

The FCC leans towards the technical definition of universal service, stating that "the goal of providing universal service required that it '(avoid) actions that would cause a significant number of local exchange subscribers to cancel (telephone) service". To preserve this technical sense of universality, the FCC stated in 1983 that "it would consider requests by local exchange carriers for a waiver of the mandatory flat rate subscriber line charge in the case of low income households which might otherwise be unable to afford telephone service.[46]

The similarity of the two perspectives on universality in the American literature and in the interviews conducted for this study might simply be a matter of interest were it not for the rest of the debate which has occurred in the United States in relation to the technical definition of universality. We believe that it is precisely this secondary debate about policies to handle the implications of achieving technical universality that provokes the concern we heard expressed in our interviews. Given the commitment expressed in the Mongeau report, by the CRTC, by most parties to the debate and indeed by the government about the continuance of universal service, something other than the proposals now on the table must account for the deeply held concern about universality that was almost uniformly expressed by the interviewees.

Bolter et al provide one window on the debate about achieving universality (in its technical sense of limiting the number of disconnections caused by any pricing increase). He draws a distinction between universality of access to the network (a "readiness to serve capacity) and usage of it. He suggests that telephone companies now (as opposed to in the past) "seem to categorize universal service as 'access to the network' exclusive of usage.[47] *Universal service, from this perspective, "only encompasses the ability to communicate and not the act of actually making phone calls." What this means in practice is that a proposal for LMS is now seen as consistent with the provision of universal service, since access can be provided universally and the actual calls charged individually.*

Another window on the debate about achieving technical universality is provided by Gordon and Haring. Having defined universal service in the terms expressed by Thomas Vail, as the ability to make and receive telephone calls, they then refer to modern discussion, in which "the issue is usually framed in terms of whether the individual has 'access' to the telephone network."[48] They then raise the question of what constitutes access, in terms of whether a private line is required to meet the access criterion.

Their argument does not concern access, however, but the various proposals to institute a Lifeline service, which they consider to fulfil the access criterion. They cite two possible rationales for government intervention "to promote a level of telephone service greater than that which would occur if consumers were to pay "cost based" prices",[49] the externality and the "merit good" arguments. They explain the externalities rationale in terms of the benefit from being able to call all "cost based" prices",[49] the externality and the "merit good" arguments. They explain the externalities rationale in terms of the benefit from being able to call all subscribers, including those who would be likely to disconnect if "cost based" pricing were instituted. They explain the merit argument as similar to externality argument, in terms of the economic benefits derived from universal telephone service that fall to those other than the subscribers that might otherwise disconnect. In both cases, they present a detailed analysis of why the rationales fail and, more importantly, why subsidies are inappropriate.

The reader of their argument might well be excused if he or she believed that this is the "second shoe" waiting to be dropped. The imposition, in the Canadian case, of somewhat higher local rates that might result from the acceptance of a rate rebalancing proposal is only one aspect -- not necessarily the most important one -- of how universality might be compromised by "cost based" pricing.

Underlying the reaction to proposals for rate rebalancing, we would argue, is a perception (and fear) that what is under attack is the principle of cross subsidization, and more particularly, the principle of providing social benefits through the use of subsidies, whether by industry or by government. As we have noted above, members of community groups indicated to us little patience with the idea that the provision of subsidies was properly a policy matter, and that no net effect was intended if the current methods of cross-subsidization (assuming it exists) were to be dismantled in favour of "government expenditure and taxation policies."

The economic arguments in favour of dismantling subsidizes that are illustrated in the Gordon and Haring article might equally well apply to public subsidies, as the authors themselves suggest. The "second shoe" might involve the dismantling of all subsidies, and thus, some groups feel, the loss of universality in any meaningful sense of the term.

Almost without exception, universal service is considered to be fundamental in

Almost without exception, universal service is considered to be fundamental in the Canadian case. In addition, such universal service includes both access to the network and, at the moment, usage of the telephone for at least local (and to some degree long distance) service. One of the working papers for the Mongeau committee specifies the different definitions of universality that might be used, but in the case of all of its definitions, both network access and calling are included.[50]

What is at issue is whether the service is affordable, and what level of service should be considered to achieve universality. It also includes a discussion of whether deposits and installation charges constitute a barrier to universality, and examines the situation of low income Canadians to see if lower telephone service penetration is characteristic of this group.

In other words, the debates that are occurring in the United States about the advisability of any form of subsidy (cross-subsidies, government subsidies, etc.) to support universality have not surfaced in Canada, at least not yet. For some of the groups we interviewed, the implication of adopting a "cost based" approach to telephone pricing was that these debates would occur. The evidence given was the interest shown (and initiatives taken) about LMS and Lifeline service, both of which might alter what is meant by universality in Canada.

For others, the movement towards "cost based" pricing contained no such premise. For this latter group, any public concern about universality was difficult to understand, except in terms of the number of low income subscribers that might disconnect were "cost based" pricing to be fully implemented. Since this latter group believed that the demand for local service was relatively inelastic, they tended to discount the threat to universality posed by new "cost based" pricing initiatives.

Footnotes:

* The background research on the historical material presented in this chapter was conducted by Regina Costa and her contribution is gratefully acknowledged.

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Part Two: History and Current Literature
Chapter Seven: The Objectives for Telelphone Pricing Policy

Overview:

There are both similarities and differences in the themes discussed in the Canadian and American literature. For example, in Canada and in the United States, when the legislative mandate is being discussed, particularly in legislative or governmental forums, both social welfare and pro-competitive objectives are included. There is a greater tendency in the Canadian material to stress the social and political contributions of regulation, but there are some Canadian commentators, such as Janisch, who do not agree with this observation and argue for a change.

The difference between the Canadian and American approach to administrative and regulatory law is easily apparent. By and large, more attention is devoted in the American literature to the development of principles to guide public policy, while the Canadian approach to regulation is more pragmatic in orientation.

As well, the objective of promoting competition seems considerably more important in the American context than it is in the Canadian one, although social and national interest goals are proposed for telecommunication services in both countries. Again there are exceptions to these observations.

A sharper contrast can be found betweenthe approach taken by policy makers and that in the academic literature. Even taking account of the pro-competitive orientation of some of the Ontario and Quebec policy documents, less attention is devoted to competitive objectives in policy making than is in the academic literature. Moreover, in general, in the policy documents, a pragmatic orientation to regulation is supported, while much of the academic literature is devoted to the identification of principles.

In the academic literature, one can identify several different debates. The first is a debate about whether competition should be included as a goal in itself (or as a primary instrument of social welfare policy) or whether competition is *at most* one of several national interest objectives. The contrast between the two main positions in this debate is best illustrated, onone hand, by John Lawrence's reference to the benefits of regulatory pragmatism and , on the other, by the following quotation from Alfred Kahn in Janisch's most recent article. Kahn says:

> There is no rational halfway house between thorough regulation and competition...Why? Because competition is unpredictable and messy, and the regulator prizes predictability and tidiness. Businesses move in and out of competitive markets. They are constantly changing their product and service offerings, schedules and prices. The regulator, in contrast, perfers continuity of service and stability and uniformity of prices and service offerings.[1]

A second debate is about whether competition and social welfare objectives are necessarily linked. The neo-classical economists believe they are; others disagree. Bolter at al argue, for example:

> The basis for these conclusions (about the benefits from markets) flows from the theoretical constructs of neoclassical economics, which outline the 'direct' tie between competition and optimal social welfare...Some argue that the policy objectives in this world of economic theory can be encapsulated in one word, 'efficiency'. The linkage is as follows: if policy makers pursue economic efficiency as a goal and markets become truly competitive (in accordance with the caveats of neoclassical economic theory), then society will attain the highest level of social welfare, all other things being equal.
>
> Of course, other things are not usually equal... Income redistribution or social programs to aid the poor may be 'inefficient' to an economist but reason enough to alter the results of pure competition...Competition is not always better than other forms of market organization. Indeed there are conditions under which competition results in reduced levels of social welfare and necessitates government intervention.[2]

A third debate is about whether the link between decisions about competition and about social welfare is beneficial or harmful. For some analysts, such as Janisch, the benefits of the association between competition and social welfare far outweigh the dislocations introduced by changing telephone pricing policy. For others, such as Bolter et al. competition cannot possibly generate the range and scope of benefits formerly associated with social policies, redistribution policies or even cross-subsidies. Bolter et al echo some concerns that were raised quite forcefully in the consultative study, by those who considered competition to be an important objective for public policy. For these people, telephone service is a special case, requiring policies that may be anti-competitive in effect.

The fourth debate is about how equity should be viewed. One option is to define equity in terms of the costs and benefits befalling particular individuals from telephone pricing policies. The other option is to stress the equity of opportunity throughout society. The former view requires that no individual pay more than he or she is likely to benefit; the latter view of equity requires some form of rate averaging.

These four debates notwithstanding, a number of the issues raised in the interviews were *not* addressed in the literature we surveyed. For example, the question of the degree to which new telephone pricing policies might (or already have) affected the employment picture has, to the best of our knowledge, not been examined in the literature. Neither has the relationship between job creation and the impact of telephone pricing policies on small business.

As well, the point about whether the telephone system resembles the railroads (in which there is a national interest in a comprehensive national system) has been dealt with primarily at the level of rhetoric. For some of the people we interviewed, the point is more than rhetorical, since they believe that the situation of rural communities is directly influenced by how policies concerning railways and telephone service are fashioned.

Finally, the integration of social and telephone pricing policies is not discussed in the manner that it was raised in the interviews, where the argument was made that social services would be curtailed by any significant change in telephone pricing policies, even if this were not the intent of the policies.

What is one to conclude from these particular omissions. At the very least, they form the basis for some new research to determine how these variables are affected by changing telephone pricing policies. It is possible to examine the employment situation in light of the current and proposed changes, and to evaluate how selected rural communities or social services might be affected by changing telephone pricing policies. Until this research exists, it is difficult to know how seriously -- very seriously or not so -- to evaluate the kinds of concerns raised in the interviews.

There is a different sort of omission in the current literature, although this is less true of governmental statements than of the academic debate. In the consultative study, a great deal of discussion is about rights and entitlements. The question of universal service is, for some, a question about the entitlements of Canadians, and not about the penetration levels of telephone service. Assuming such entitlements exist, they probably extend to cover some enhanced services.

The question of whether and under what conditions any entitlements exist is one that can be addressed by political scientists and philosophers. It is, in other words, also amenable to research, although not usually research by economists. If the resolution to the debates about telephone pricing policies relies upon research, however, then the research should encompass one of its main aspects, the question of entitlements.

The debate about telephone pricing policies has been portrayed, here and elsewhere, as a debate about the usefulness of either approach, and about the significance of a transition from "value of service" to "cost based" pricing. It has been argued at several points in this report that neither "value of service" nor "cost based" pricing describes the current situation accurately, in part because of the pragmatic approach taken by both governments and regulators in Canadian communication policy.

based" pricing describes the current situation accurately, in part because of the pragmatic approach taken by both governments and regulators in Canadian communication policy.

Nonetheless, for some, "cost based" pricing has a much more specific meaning, and the transition from one approach to the other is seen as highly significant. Using the analysis of the debates in the current literature it is possible to determine *which* of the various approaches to "cost based" pricing is so significant.

We would suggest that the "cost based" pricing that is being referred to as significant is one that takes competition as a preeminent goal of public policy,. It is the one that links competition and social welfare policies. It is the approach that argues that the current association of competition and (non-market based) social welfare policies has been to the detriment of both. This particular approach to "cost based" pricing rests on the assumption that social policy goals can be achieved most properly and effectively (and perhaps exclusively) through pro-competition policies.

From this perspective (and conceivably this perspective alone), "cost based" pricing does mean the dismantling of universal service or at least the rejection of the current social welfare objectives for telephone pricing policies. For those who support such a perspective -- Globerman and Stanbury come to mind, but there are many others in the literature -- the assertion that demand is inelastic for telephone service is an important one.

For these commentators, universal service means only the high levels of penetration for basic telephone service. Such levels are not likely to be altered if there is inelasticity of demand (and because of the compensation that befalls residential subscribers in the form of lower long distance rates). Moreover, from such a perspective, even LMS has social welfare benefits, since it permits people the freedom to choose the level of telephone service they will use according to its cost characteristics.

What is the alternative to this particular perspective on "cost based" pricing? Is it some modified adoption of it, accepting some but not all of its arguments and assumptions? Is it accepting that competition, while valuable in its own right, is an unaffordable luxury in the provision of telephone services in Canada? Is it a compromise, or some new cost allocation principle? Is it "value of service" pricing?

If the questions are put in these terms, there probably are no resolutions to the current debate about telephone pricing policies. For every positive response to these questions, and every proposal, some objection can be found about its apparent injustice. In this situation, one is reminded of Schultz' comment that the "go slow" attitude towards competition serves a dual function for the major telephone companies in that it protects monopoly privileges at the same time as it supports social welfare policies. One is also reminded of the fact that "value of service" pricing has not always been benign with respect to social goals and that the term is properly associated also with "charging what the market will bear."

There is an alternative to answering the questions as they are posed above and in the current debate about telephone pricing policies. There is an alternative to choosing between "value of service" and "cost based" pricing.

The alternative is to focus much more directly on the objectives for telephone pricing policies themselves. Developing a National, or federal-provincial for that matter, Telecommunications Policy is one method of focussing on objectives, but there are others. In any case, the discussion of objectives must come to terms with the question of entitlements, the level of service that Canadians -- all Canadians -- have a right to expect.

With John Lawrence, we believe that pricing philosophies are not themselves objectives. Pricing philosophies and methods are the means by which objectives are

With John Lawrence, we believe that pricing philosophies are not themselves objectives. Pricing philosophies and methods are the means by which objectives are realized. They are means to an end. The most that can be said is that some pricing philosophies are more appropriate than others to achieve particular objectives. While both "cost based" and "value of service" pricing are associated with particular objectives, they also involve a number of decisions that have little relevance to the objectives of telephone pricing policies.

Nonetheless, the term "value of service" is a useful one because the entitlements and objectives associated, rightly or wrongly, with "value of service" have been most fully identified, and these objectives correspond to what many people seem to demand of their telephone service. It is easy to forget these objectives or to substitute other ones in speaking about the challenge of the new competitive environment.

The term "value of service" is useful in another sense. The use of the term "value of service" is a reminder that some other research needs to be done, and that there are questions to be addressed that are not likely to be dealt with in a debate about competitive markets and their consequences for telephone pricing policies.

We have argued that some important questions are not addressed in the debates about the value of pro-competitive policies or the effect of competition. They have not been adequately addressed by research that has primarily been designed to determine the effect of competition or specific "cost based" pricing initiatives.

Because of the confusion over the definition of "value of service", and its association with a number of quite contradictory consequences, however, it may well be time to refrain from describing objectives for telephone pricing as "value of service".

The use of "value of service" to refer to everything that has historically been

The use of "value of service" to refer to everything that has historically been done in telephone pricing -- a use that is very widespread, even in the academic literature -- only confuses the issue. *No one* would ever argue that everything that has been done in "value of service" pricing has been designed to meet social welfare objectives or that historically, only a "value of service" approach has been taken to telephone pricing policy.

Background data:

(a) Introduction: What is the relationship between the objectives for telephone pricing policy expressed in the consultations and those identified in the literature? In some sense, determining the objectives for public policy is the most important task to be done, but, ironically, it is a task least well accomplished in interviews or in the academic literature particularly from the United States.

Part of the difficulty lies in the fact that speaking about its objectives requires individuals to talk generally and idealistically about public policy. The problems faced by governments, regulators and industry are usually ones concerning the implementation of public policies. The choices they face are less often defined in broad terms, as objectives. They are more likely to be tied to specific situations and a limited range of options. It is easy to appear naive in the discussion about the objectives for telephone pricing policy.

Nonetheless, as this report has demonstrated, quite fundamental debates are occurring that can only be accurately described with reference to the objectives or principles governing public policy. When discussed in terms of pragmatic issues of policy implementation, those engaged in the debate fail to find a resolution of the issues that is satisfactory to themselves.

The debate about LMS provides a very good example. If pragmatic issues were all that were to be determined, the removal of specific proposals for the *implementation of LMS for residential service anywhere in Canada should have ended the debate. It did not, for the reason that many view the current objectives being pursued by the industry and in public policy as leading to the introduction of LMS.*

Another example -- one close to the heart of this study -- is the issue of telephone pricing philosophies, and specifically the transition from "value of service" to "cost based" pricing. As noted in the previous chapter, in examining CRTC decisions, it is apparent that neither "value of service" nor "cost based" pricing is relied upon as an exclusive pricing principle. Both are generally taken into account in an assessment that includes other factors as well.

As John Lawrence, Commissioner of the CRTC, noted when asked to speak about "The Rise and Fall of Regulation: Policy Paradigms Including Federal-Provincial Relations":

> I must admit to being puzzled by the title. It seems to suggest that in telecommunication matters, the old paradigm -- government regulation -- is being replaced by some new paradigm, which is going to result in the current substitute for Nirvana, deregulation...This, it is contended, is appropriate because technological change has eroded the significant economies of scale that used to exist in telecommunication markets, thereby rendering monopoly firm regulation anachronistic.
>
> ...there has not been any significant fall of regulation either here or in the U.S.. Furthermore, as a matter of policy, that view is much too optimistic unless by some magic we can come to see the interests of a few large firms with preponderant power in their markets as synonymous with the public interest...I believe the critical issues in the telecommunications field are of political or policy nature, being largely value-based.[3]

This report takes its direction from the fact that different objectives underlie the debate about the relative merit of a "value of service" and a "cost based" approach. Otherwise, in light of the decisions actually before the CRTC or produced by them, there would be very little to speak about.

The question of the objectives is important for another reason. A number of individuals, governments and groups have called for the development of a national telecommunications policy. In addition, changes to the traditional relationships between federal and provincial governments are being considered in the area of telecommunications. If a national telecommunications policy is being considered, it will be important to clarify the objectives for telephone pricing policy, at least in terms of the federal-provincial discussions.

(b) Review of the Interviews Conducted for this Report: In the consultative portion of the research, a number of objectives were identified and discussed. They included the objective of promoting competition, of promoting economic development, the question of whether there was a national interest in telephone service, and several social policy objectives.

Although pro-competitive policies are generally held in high regard by a substantial number of Canadians, this view was not strongly represented in the research. In the interviews, very few people stressed the need for pro-competitive or deregulatory (not the same thing) policies in their own right. Indeed some dispute existed about the advisability of pro-competitive objectives. Indeed, our research is confirmed by data from a recent Decima study -- although the conclusion reached by Decima is quite different from our own:

> Decima studies show 57% of Canadians in favour of telecom deregulation, but 70% against competition with local rate increases. However the public does not have experience in this area, so their opinions are volatile and subject to being influenced by the first one to clearly explain the situation to them.

Our study suggests that something other than a lack of a "clear explanation" accounts for the discrepancy between the generally supportive views of deregulation and the lack of support for competition in telephone pricing policy. As an illustration of our general conclusion, we note the position taken by groups, who felt strongly pro-competitive with respect to other policy issues, but who opposed pro-competitive objectives for telephone pricing policies. They argued that the provision of telephone service was a special case, requiring a different policy approach.

Most people interviewed endorsed the proposition that telephone pricing policies should be used as part of a strategy of economic development, but some expressed doubt that the more important sectors for promoting growth -- small business, for example, -- would be the beneficiary of the proposed changes. In addition, the point was raised forcefully that the changes introduced so far (for example, concerning terminal attachment) had the net effect of curtailing jobs and job opportunities.

The question of whether telephone pricing policies were imbued with a national interest was answered in several different ways in the interviews. A regulator spoke of issues such as national sovereignty and privacy.[4] Many people suggested that telephones were like railways in the Canadian context, and as such, the development of a national system of affordable telephone service was a national priority. At the same time, it was noted that the interests of several of the provinces diverged.

Some interviewees suggested that the question of whether telephone pricing policy should serve a national interest objective was brought into sharp relief by the free trade negotiations. A union representative explained the threat as he perceived it:

> We also found out that enhanced services are on the free trade agenda, and the Americans want MTS to be on the table in two years...In addition, MCI and Sprint are across the border, eyeing Canada. All they have to do is flip a switch, and they can deal with their excess capacity.[5]

The national interest objectives of telephone pricing policy were seen to be endangered by free trade.

Finally, a number of people posed social policy objectives for telecommunication policy. These objectives encompassed more than a concern for the disadvantaged, or those who might disconnect as a result of changing telephone pricing policies. These people suggested that employment policies, the delivery of social services, advocacy work and emergency support services were all dependent for their realization on appropriate telephone pricing policies.

(c) The American Literature: Only some of the objectives identified through the interviews were discussed in the American literature we surveyed. For example, there is mention in the American legislative debate of national security and of the plight of those who might be disadvantaged by changing telephone pricing policies. We have been unable to locate a discussion of the employment implications, however, or studies about the effect of telephone pricing policies upon the delivery of social and emergency services or upon advocacy work. As might be expected, the implications of the free trade negotiations with Canada were also not addressed in the American debates.

In reviewing the American material, it is useful to begin with the legislative debate about the objectives for telecommunication policy. In the joint hearings on the Universal Telephone Service Preservation Act of 1983, the following objectives were listed:

> to ensure the availability to all people of the United States, affordable, efficient communication services which are essential to full participation in the Nation's economic, political and social life;
>
> to ensure that the costs of maintaining such availability are equitably allocated among all users and providers of communication services who benefit from the availability of such services;
>
> to ensure that the States have sufficient regulatory authority to maintain universally available and affordable telephone service;
>
> to assure that the economy, general welfare, and national security of the United States will benefit from continuing improvements in telecommunications technology and the continued development of a

competitive telecommunications industry.[6]

At first glance, these legislative objectives are nothing if not "motherhood" statements. On closer examination, they raise a number of questions that are debated further in the literature. We have already identified the debates that have occurred over the meaning of universality, and will not repeat that discussion here. Other issues do require further scrutiny.

First, it should be noted that these legislative objectives set down a national interest objective for telecommunications policy. This national interest includes national security and the full participation of all citizens in national economic, social and political life. Taken at face value, such a broad view of the American national interest in telephone pricing policy might well compromise what many economists see as the economically efficient use of the resources. If implemented in a comprehensive manner, it might require some form of redistribution or subsidies.

Second, these legislative objectives commit policy makers to a strategy of economic development in the area of telecommunications, and more particularly, to the creation of a "competitive telecommunications industry." This is another, quite different national interest, for it seems to require the active pursuit of pro-competitive policies perhaps even to the exclusion of the redistributive ones that were implied above.

Finally, these legislative objectives suggest that costs and benefits from the use of telecommunications should be linked in "an equitable manner". This, too, raises the question of whether telephone pricing policy should be redistributive in intent, and whether it should serve a national interest other than the creation of a competitive telecommunications industry.

More particularly, it raises the question of whether equity should be defined in terms of individual users (none paying costs more than the benefits he is likely to receive from the service) or in terms of redistributive policies (equity in terms of opportunity based or access to affordable telephone service). In general, the view expressed in the American literature is that equity should be viewed only from an individual user's perspective.

Academic commentators in the American literature raise a number of other points. Reference has been made to the arguments advanced by Gordon and Haring. It is their position that the adoption of pro-competition as a "single economic principle" in telephone pricing policy would be an unambiguously good thing. They state:

> ...the pro-competitive policies that have been developing at the FCC and elsewhere in government over the past decade have been undertaken to increase (emphasis theirs) the economic welfare of consumers...Prices that reflect costs allow people to make choices in accordance with the costs they impose on society in terms of the alternative resource uses foregone and the benefits they expect to receive...We believe, to summarize, that there are important benefits to be obtained from the promotion of competition in telecommunications.[7]

Levin and Gillan discuss the problem of achieving equity in telephone pricing policies. Their position is that regulation has a limited capacity to deal with the equity issue. They argue:

> The transition from monopoly to competition places unique demands on the regulators who are asked to make policy judgements on entry and regulation based upon arguments concerning equity. Regulators must remember that entry is successful and competition occurs only if society as a whole benefits....attempts to regulate competition are also likely both to be costly and to fail...Regulators must understand that they have much less discretion to deal with equity concerns than many people, including themselves, believe.[8]

Perl attempts to answer the question: "If the move to cost-based pricing is so generally beneficial, why does it incur so much opposition?"[9] His answer is that the costs and benefits of "cost based" pricing fall upon different sectors of the population.

He seeks implementation of "cost based" pricing with a variety of proposals that lessen its burden on low income subscribers. For example, he says:

> I think the answer lies in making compromises with 'cost based' rates to achieve a better distribution of the benefits. Consider one possibility: telephone access charges could be made to vary with household income....By modifying the rate increase for these (low income) households, some of the decline in telephone penetration associated with 'cost based' rates could be avoided.[10]

While supporting the transition to "cost based" pricing, Perl seeks a compromise between pro-competitive and social welfare objectives. His method for compromise is to reintroduce some measure of cross-subsidization, this time with respect to rate increases in access charges.

The conventional approach to achieving compromise between pro-competitive and social policy objectives is to introduce Lifeline service. Lifeline service is "pared-down" telephone service that is made available, to special groups, including the welfare poor and the elderly. There have been a number of proposals for Lifeline service (some of which have now been implemented) in the United States. In some instances, specific regions are targeted for Lifeline service, while in others, the subsidy goes to groups already receiving social assistance or to particular income groups. It is not entirely clear whether Lifeline service requires cross-subsidization.

It is a matter of some debate about who should bear the burden of subsidies to support Lifeline service, the telephone companies or government. In our survey, we could find no discussion in the American literature of the implications of transforming a universal service into a service that is supported as welfare payments for specifically targeted groups.

In dealing with the potential for a compromise between pro-competitive and social welfare policies, Boltor et al are drawn back to an assessment of the purposes of regulation. They identify the conventional view of the components of public utility regulation, stating that "public utility regulation is simply a specialized application of the social control of the 'crucial points in the flow of economic transactions". They argue that:

> Over the long run, competitive firms will not supply markets where costs exceed the anticipated revenues. This is true even if some of these markets produce certain life-saving medical skills and equipment or other 'socially redeeming' products.[11]

Thus, they argue that regulation should be seen not as a substitute for competition (as it conventionally has been) but as an alternative to it, often with results that are anti-competitive in effect.

A fair number of commentators, including some we have mentioned, argue that the objectives of competition and social welfare conflict, and cannot be compromised easily, especially within the framework of regulation which they argue is often anti-competitive in effect. There is another view -- namely, that social policy and competitive policies can be pursued simultaneously. In an early commentary, Melody argued, for example:

> Increased competition (in the telecommunications industry) will mean that some traditional methods for implementing social policy objectives must be modified. The best methods for implementing social policy in a monopoly environment are not necessarily the best, or even appropriate methods in a competitive environment. However, there is no reason to conclude that regulatory commissions will have to abandon or compromise their social policy objectives in order to make maximum use of competitive forces...The balancing of multiple objectives of public policy has been a fundamental aspect of public utility regulation and the public utility concept going back to the English common law.[12]

Melody quoted Bonbright in suggesting that "sound public policy is a policy of reasonable compromise among partly conflicting objectives".[13] Melody suggested that the choice is not between social policy and competition. He said:

> Competition is one means by which social policy can be implemented. It is an instrument to be evaluated in terms of its effectiveness as an instrument of social policy.[14]

From a layperson's perspective there is a great deal of commonsense in a view that some compromise will be required between social policy and other objectives.

There are other academic commentators who take the position that competition will promote social welfare more adequately than the social welfare policies specificially designed for that purpose. These commentators have put forward some of the strongest arguments in favour of LMS.

For example, in the Schultz and Barnes study of local telephone pricing, Beauvais (of GTE) lists eight goals for the pricing policies to be used with public utilities, including universal service, allocative efficiency, equity, financial self-sufficiency, efficient industry structure, consistency with technology, administrative simplicity and historical continuity.[15]

He does so, however, to argue that LMS meets the majority of them, suggesting that LMS has the advantage with respect to the provision of universal service, allocative efficiency, financial self-sufficiency and consistency with technology (assuming the costs of administering LMS are less than the potential cost savings it provides). In stating his argument in such a manner, he uses the narrowest, and most cost-oriented definition of universality, and in doing so, gives precedence to efficiency over other (more commonly understood) social policy goals.

It should also be noted that relatively little attention has been devoted in the American literature to fashioning principles to govern a compromise between competition and social welfare goals, with the exception of proposals involving the reintroduction of targeted subsidies.

There are exceptions to the general observation that relatively little attention has been paid to bringing together competition and social welfare objectives. Melody suggests that different costing principles than are now being applied would allow the pursuit of both. David Gabel also suggests some different principles for telephone pricing policies:

> In the future, the discussion about the telephone rate structure should not be centred around a concern for which service is being gored. A decision must be reached on a pricing policy which encourages the efficient use of the telephone system. As part of this effort, prices should be set to ensure that smaller customer classes, such as large telecommunication users, do not pay a rate that exceeds the social benefits and stand alone costs associated with the services they receive.[16]

Gabel proposes a particular method of cost allocation to achieve the social welfare objectives. Gabel and Melody, it seems, see equity and pro-competitive policies as different yet potentially compatible. Both believe that equity goals can be achieved in a competitive environment, but *not* simply by following pro-competition -- free market -- policies.

(d) The Canadian Governments' Views: Canadians have devoted more attention to the broad general objectives for telephone pricing policy than is evident in our survey of the American literature. This attention has come from the former Minister of Communications, the CRTC, various provincial governments, and several commentators. We will describe the objectives of each, before exploring the points of debate among them.

In 1985, the Honorable Minister for Communications Marcel Masse gave a speech outlining four principles to be applied in telecommunications policy.[17] The first was "universal access at affordable price". By this, Masse meant that policies must ensure that the current level of service be maintained at, one assumes, its current levels of affordability. A second objective was to create technological progress "to benefit all Canadians".

The world leadership of the Canadian telecommunications industry was stressed, and the assertion was made -- an important one in light of free trade negotiations -- that this leadership must not be allowed to erode because of technological changes. The point made by Masse went beyond the conventional objective of ensuring technological leadership within an industry. Masse argued that the benefits of technological advancement must not be concentrated in "the hands of the few."

Third, Masse proposed the objective of ensuring international competitiveness. He continued with a fourth objective, that the telecommunication service should be approached from a "uniquely Canadian" perspective. The special circumstances of Canada -- his reference was mainly to geography and climate, but he might have gone further -- demanded a telecommunications policy that might not be appropriate in other jurisdictions.

In other words, Canada was not to embark upon policy initiatives that were drawn from the example of other countries (one thinks of divestiture as an illustration) unless such initiatives took account of the particular circumstances of telecommunications in Canada.

The CRTC has made a number of statements with reference to the general objectives for its implementation of telephone pricing policies. It has argued, for example, that the widest possible scope should be placed upon its interpretation of the public interest, within the statutory provisions of the Railway Act.[18] Thus, for example, the terms "just and expedient" and "reasonable and proper" can "and should be subsumed under the general test of whether or not the relief sought is in the public interest".

In a speech in 1981, John Lawrence, a Commissioner of the CRTC, outlined what he saw to be the priorities for the implementation of policy as follows:

> monitor the actual state of competition in various telecommunication markets.
>
> improve the effectiveness of traditional price/earnings regulation of all

> carriers having a de facto monopoly in certain markets.
>
> develop effective regulatory methods for overseeing the behavior of firms participating in both monopoly markets and imperfectly competitive markets.
>
> ensure that regulatory policy and decision making is not a barrier to the establishment and improvement of competition in all non-monopoly markets unless there is some legitimate social goal to be served and *without* reintroducing subsidies for *targeted* populations.[19]

He continued by stating:

> From this perspective, it seems to me that the role of the regulator is to be sensitive to, and willing to act upon, the currents of change in society while not being stampeded by the various manifestations of anxiety for a new order that accompany all new challenges to change.

It is interesting to note the way he describes the onus that is on the CRTC. The burden on the CRTC is a negative one, to ensure that regulatory decision making does *not constitute a barrier to competition.*

For Lawrence, then, and we suspect the CRTC generally, broad social goals constitute an important mandate for the CRTC, and pro-competitive policies are possible, but not necessary "instruments" for achieving broad social goals. Lawrence has defended regulatory pragmatism on several occasions. In one case, he stated:.

> ...pragmatism has enabled us (Canadians) to avoid the pitfall of adding to our list of goals for telecommunications policy such means-related items as the monopoly provision of telecommunications services....Pragmatism will also enable us to avoid the pitfall of competition and deregulation to our list of goals.[20]

The position of the Ontario government is different from that presented by John Lawrence, and that in evidence in CRTC decisions. In a 1984 paper, the Ontario Ministry listed the following as the appropriate objectives for telecommunications policy:

> universality of access..at affordable rates...
>
> fairness to all parties and regions...
>
> recognizing that competitionis not always adequate to the purpose ...provision of telecommunications services on just and reasonable terms.
>
> full opportunity for Canadian business to be competitive and to have access to a wide range of competitively priced telecommunication services.
>
> fullest opportunity for the development, implementation and commercial exploitation of the new telecommunications technology...
>
> government policies to provide the flexibility to accommodate and promote the introduction of new services...and the industrial restructuring that may accompany them.[21]

In another document, the Ontario government stresses that there should be no subsidies from monopoly to non-monopoly services, that non-monopoly services should be priced at cost or above, and that there should be a minimum regulatory burden.[22]

Although the Ontario government's proposed principles can encompass a wide definition of the social policy aspects of telecommunication, much more stress in the Ontario documents is placed upon competition, as an objective in its own right and as a key to economic development. The Quebec government submission echoes the same themes as the Ontario material, stating that:

> ...the existing price structures for telecommunication services were developed on the basis of social considerations rather than economic ones. As a result, they have not taken into account the new reality which the telecommunication industry now faces.[23]

(e) The Canadian academic debate: Several analysts of telecommunications policy have been chosen as illustrations of the academic debate. First, Globerman and Stanbury argue that it is essential to distinguish between fairness and equity in the discussion of the objectives for telephone pricing policy. Equity, they argue, is

"linked to the impact of public policies on the distribution of income across different socio-economic groups".[24] Citing Baumol, they suggest that fairness "is concerned with whether public policies are consistent with widely-held social values" and that, as a working principle, fairness means that individuals "in like circumstances should receive like treatment."

Globerman and Stanbury use the distinction between fairness and equity as the basis for their arguments in support of the introduction of LMS with rate rebalancing. Objections to LMS as unfair can be dismissed, they suggest, because LMS imposes charges "equal to the real cost" of calling, equally on all subscribers. LMS is fair, they suggest, because people who impose costs on society are those upon whom costs are imposed.

Globerman and Stanbury deal with the equity-based objections to LMS, and more particularly with arguments in support of cross subsidies. They argue that since Canada already has universal service and since the demand for local service is inelastic, an increase in prices would not undermine universality. They point to the fact that a large proportion of telephone calling, taken on a national basis, is made up of long distance (i.e. not flat rate) calling, and suggest that for the average household, the benefits of the cross-subsidies for local telephone calling are cancelled out by the additional costs of long distance.

In another article, they suggest that the only real losers would be families with teenaged children and businesses that rely upon telephone solicitation.[25] Finally, they argue that the national interest in a healthy telecommunication industry can be met without regulation or cross-subsidies. They draw attention to the market power already exerted by the major telephone companies that enables them to develop new technologies in their all-but-protected markets without cross-subsidies.

Schultz takes a different approach. Although he is concerned to protect monopoly subscribers against the use of their rates to cross-subsidize competitive services, he questions whether it is the role of the regulator to act to protect either the competitive services or the competitors. Indeed, he argues that "(it is not) the function of a public utility regulator to promote competition...or even to see that we have an environment conducive to competition". He states:

> I don't see any section in the mandating legislation of the CRTC, the Railway Act, the CRTC Act, the Broadcasting Act that confers on it an affirmative power to promote competition. What I see in the Railway Act is an affirmative duty to protect subscribers to monopoly services.[26]

Schultz, then, takes a middle ground. Arguing that pricing policies should not provide the opportunity for cross-subsidies to the competitive services, he does not believe that regulators should protect regulated firms from technological change. However, he finds mixed motives behind statements of support for social welfare policies that require anti-competitive measures. He says, for example:

> I don't think they can fall back, the regulated firm...and say, 'well, we provide all these good services and social welfare functions, protect us from change'.[27]

Janisch provides a detailed review of the legal framework surrounding decisions about telephone pricing policy, and in doing so, extends Schultz' point considerably. He suggests that the CRTC has displayed "regulatory overreach", inasmuch as there is now in existence a form of regulated competition, which, "while delivering few of the benefits of regulated monopoly or unrestricted competition, threatens to do so at greater cost than either alternative." He advocates adherence to several principles in telephone pricing policy:

A. Competition, once allowed, is irreversable.
B. Regulation and competition are inherently incompatible.
C. Effective regulation is that which meets statutory goals with the least amount of interference in private markets
D. Regulation must be neutral as between market participants.[28]

Having argued that the pressures for competition are irreversible, Janisch suggests that Canada has little choice but to make changes, and that the regulatory structures in Canada must adapt to competition. He stresses the importance of the pro-competitive approach, even to the extent of expressing concerns about the merit of political considerations that might temper pro-competitive policies. He says:

> Canadian assertions of the need for political accountability are commendable to the extent that truly political problems stand in need of political solutions. However it is not yet apparent that elected officials will be prepared to grapple effectively with the necessity of dismantling the cross-subsidies of the monopoly era....Rate rebalancing is now firmly entrenched in the federal-provincial process with the risk of considerable delay. A major task facing reformers will be the need to persuade politicians that any adverse impact on local rates will not be such as will outweigh the overall benefits of competition and that, in the end, all will benefit, not just large corporations.[29]

Woodrow and Woodside offer a broader notion of political considerations than Globerman, Stanbury or Janisch might find persuasive. For Woodrow and Woodside, political feasibility should be defined not as "winners and losers" nor should a political assessment of the politics of an issue be conducted as if it were a cost-benefit analysis.

They argue that political feasibility is the "institutional and socio-political capacity to effect changes in the existing ways of doing things, including a variety of factors which are generalized features of all liberal democracies but...also specific to the particular Canadian situation".[30] They then suggest that "the impact of technological change on the future of telecommunications and the movement towards competition in the provision of telecommunication goods and services are dependent in the final analysis on some conception of political feasibility".

Mansell takes a different perspective altogether.[31] She suggests that the "crucial issue for Canadian policy makers is whether the entry of U.S. carriers can be prevented or at least controlled through pricing and revenue sharing agreements between members of Telecom Canada and U.S. competitive carriers." She argues that more choice for telephone pricing policy exists than is otherwise perceived. This choice is dependent upon whether costs are allocated appropriately to different types of service.

She introduces a different proposal for discussion. Since there is a national interest in developing the telecommunications industry, and in supporting the competitive position of Canadian industries that are heavily dependent upon telecommunications, she believes that some new policy initiatives are required.

Rate rebalancing will have the effect, she suggests, of shifting the burden for promoting Canadian competitiveness onto the residential consumer, and onto people who can least afford it. This is true because the currently used methods of cost allocation fail to allocate the common costs of local and long distance properly, resulting in the misperception that local service subsidizes long distance.

Instead of rate rebalancing, she suggests, it is appropriate to consider whether direct subsidies to support Canadian competitiveness among telecommunication users might be more effective. These major users are the intended beneficiaries of the new telephone pricing policies, and if subsidies are required, they should be provided with them, without *direct* cost to the residential subscriber.

Her proposal has been taken up by several public interest groups. In one publication by a consumer group, the following argument was made:

> If rate rebalancing is rejected, Canadian long distance rates will be higher than those in the U.S. and Canadian industry may be at a competitive disadvantage. To resolve this problem, the government must first determine the extent to which U.S. firms have an advantage.
>
> The difference in telecommunication costs could be offest by measures such as tax credits or direct subsidies in the form of loans and grants. These incentives could be tied to federally and provincially sponsored communication technology programs. This approach would maintain universal telephone service, stimulate investment in the telecommunication infrastructure, enable Canadian industry to compete internationally and ensure that all Canadians gain from the application of telecommunications

innovations.[32]

Footnotes:

1. Bohdan S. Romaniuk and Hudson N. Janisch, "Competition in Telecommunications: Who Polices the Transition?" *Ottawa Law Review*, Vol. 18, No. 3, 1986, p. 650.

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